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SECRETARY OF THE AIR FORCE**

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VOLUME 1**



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Flying Operations

KC-10 AIRCREW TRAINING

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This volume implements AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*, and AFD 11-4, *Aviation Service*. It covers the aircrew training policy for the KC-10 aircraft to safely and successfully accomplish their worldwide mobility missions.

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identification and definition. This AFI is a basic directive. Each MAJCOM or operational theater may supplement this AFI. MAJCOM supplements may be more, but not less restrictive than this instruction.

This publication applies to Air Force Reserve Command (AFRC) units.

This publication does not apply to the Air National Guard (ANG).

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed. It standardizes format, paragraphs, and information with other AMC Mission-Design-Series (MDS) specific Volume 1's by relocating and renumbering throughout.

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Chapter 1

GENERAL

1.1. Training Objective. This instruction prescribes basic policy and guidance for training United States Air Force KC-10 crewmembers according to AFI 11-202, Volume 1, *Aircrew Training*.

1.1.1. The overall objective of the aircrew training program is to develop and maintain a high state of mission readiness for immediate and effective employment in exercises, peacekeeping operations, contingencies, and war. Mission readiness and effective employment are achieved through the development and mastery of core competencies for KC-10 crewmembers. These core competencies include the ability to conduct receiver and tanker AR, tactical ingress, tactical egress, tanker operations, instrument procedures, mission planning, ground operations, crew management and C4/AOC integration.

1.1.2. This document also links AFTTP 3-3.KC-10, *Combat Aircraft Fundamentals—KC-10*, requirements into mission and continuation training tables while retaining a combat culture, leading edge technologies, and pushing capabilities while anticipating warfighter needs.

1.1.3. The secondary objective is to standardize KC-10 training requirements into a single document to meet requirements for a basic document in AFI 11-200, *Aircrew Training, Standardization/Evaluation, and General Operations Structure*.

1.1.4. Throughout this document references are made to training requirements controlled by other AFIs and provide guidance derived from those AFIs. The controlling AFI may be updated after the publication of this document, so it is necessary to refer to the source document AFI for current guidance. If a conflict is identified for a training requirement, comply with source document that establishes the training requirement.

1.2. Key Words Explained.

1.2.1. "Will" and "shall" indicate a mandatory requirement.

1.2.2. "Should" is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.2.3. "May" indicates an acceptable or suggested means of accomplishment.

1.2.4. "Note" indicates operating procedures, techniques, etc., which are considered essential to emphasize.

1.3. Administration.

1.3.1. Supplements. This AFI is a basic directive. Each MAJCOM or operational theater may supplement this AFI. MAJCOM supplements may be more, but not less restrictive than this instruction.

1.3.1.1. MAJCOMs may set training requirements lower than specified in this instruction when the statement "or as specified in MAJCOM supplement" is indicated as applicable to that item or event. MAJCOM supplements must be coordinated/approved by AMC/A3T and AF/A3OI IAW AFD 11-2, and AFI 11-202 Volume 1, before

publication. Units will send one copy of local supplement to the parent MAJCOM OPR. (T-2)

1.3.2. Local Training Guidance. Units may supplement this instruction and will submit a copy of the supplement to the parent MAJCOM OPR after approval by the OG/CC. Air National Guard (ANG) is considered a MAJCOM for purposes of this instruction per AFI 11-202, Volume 1. (T-2)

1.4. Responsibilities. AFI 11-202, Volume 1 outlines responsibilities for aircrew training. See [Chapter 6](#) for specific responsibilities related to the KC-10 Aircrew Training System (ATS).

1.4.1. Lead Command. Air Mobility Command (AMC) is designated lead command for the KC-10 Mission Design Series (MDS) as specified in AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, AFPD 11-2, and AFPD 10-21, *Air Mobility Lead Command Roles and Responsibilities*. The lead command is responsible for establishing and standardizing aircrew flying training requirements in coordination with user commands. AMC/A3 delegates to AMC/A3T the authority to manage all training course requirements, training tasks and Aircrew Training Systems (ATS). AMC/A3T in coordination with user commands approves/fields continuation training requirements or adjustments, and short-notice specialized local upgrade courses (e.g., FM Immunity). AMC/A3T is OPR for this AFI.

1.4.1.1. Courses. AMC/A3T, in coordination with user commands, approves initial, mission certification and continuation training requirements and fields locally taught upgrade courses.

1.4.1.2. Realistic Training Review Board (RTRB). AMC/A3T will host a RTRB biennially, or more frequently as required. The RTRB reviews all training programs for currency, applicability, compliance and effectiveness. Attendees should include training representatives from AMC/A3T/A3V/A3D, USAF Expeditionary Center (USAF EC)/WCOX, AFRC, curriculum developers, formal schools, selected unit representatives, and aircrew training system (ATS) contractors, as applicable.

1.4.1.3. Detachment 1, Air Mobility Command Air Operations Squadron (AMCAOS):

1.4.1.3.1. Aircrew Training Device (ATD) Certification. Det 1 AMCAOS personnel will conduct a semi-annual Simulator Certification (SIMCERT) on all ATDs according to AFI 36-2251, *Management of Air Force Training Systems*, FAA AC 120-40B, *Airplane Simulator Qualification*, FAA AC 120-45A, *Airplane Flight Training Device Qualification* and, *Aerial Refueling Airplane Simulator Qualification* (ARASQ). SIMCERT includes objective and subjective testing, inventory inspection, Quality Assurance Inspection (QAI), and contract compliance evaluation. The contractor will run one quarter (1/4) of the Qualification Test Guide (QTG) every three months based on actual aircraft data. These tests will annotate Pass or Fail for each sub-test prior to semi-annual simulator certification. Det 1 AMCAOS will use one simulator period to randomly sample 10% of the QTG. This profile will be stated in the notification letter to the contractor.

1.4.1.3.1.1. Flight Training Device (FTD) Certification. The FTD is tested and certified in the same manner as the simulator except where the fidelity of the device limits the tests. The standards for these types of devices are derived from

FAA AC 120-45A.

1.4.1.3.1.2. SIMCERT. Notify the host unit 45 days in advance of a scheduled SIMCERT. A short-notice SIMCERT is available with verbal coordination between host unit, Det 1, AMCAOS, AMC/A3TK, ATS contractor, and the ATS contract management team. Report SIMCERT results to AMC/A3TK and AFMC ASC/WNSPA.

1.4.1.3.1.3. Monitor training device utilization, availability, and ensure equipment malfunctions are corrected through coordination with the ATS contractor, when required.

1.4.1.3.1.4. Det 1 AMCAOS Simulator Testing and Familiarity Training. Det 1 will coordinate directly with the contractor when testing or familiarity training in the simulator is required. The use of the simulator will be on a non-interference basis with contractor concurrence and Det 1 AMCAOS/CC approval.

1.4.1.3.2. ATS Courseware Certification. KC-10 courseware development, revisions, and acceptance are tracked by a mutually accepted process between the government and the ATS contractor. This process is to review and approve KC-10 courseware for timely delivery, accuracy, and compliance with the KC-10 Instructional Systems Development (ISD) Management Plan and USAF courseware standards. The chief of courseware or appropriate Det 1 courseware representative will issue final approval for the government after the training media is ready for implementation at the training sites. Contractual acceptance for the government is vested in the KC-10 program's contracting office located at Wright-Patterson AFB (ASC/WNSPA).

1.4.1.3.2.1. Training Systems Configuration Working Group (TSCWG) will be held monthly or as specified by the ATS contract, and attended by Det 1 SIMCERT and Courseware representatives. The status and disposition of each courseware effort, whether in-scope, out-of-scope, late, or delayed will be briefed by the ATS contractor courseware staff. Det 1 AMCAOS will alert ASC/WNSPA and AMC/A3TK of any discrepancies that cannot be resolved through Det 1 and contractor agreements.

1.4.1.3.2.2. Det 1 AMCAOS will schedule Subject Matter Experts (SME) for Technical Interchange Meetings (TIM) with the ATS contractor. Det 1 AMCAOS will also schedule crewmembers (as required by the contractor) to assist in courseware development including Individual Tryouts (ITO) and Small Group Tryouts (SGTO).

1.4.1.3.3. Contract Compliance. Det 1 AMCAOS personnel will conduct periodic Contract Compliance Evaluations (CCE) for KC-10 ATS-supported sites and report results to AMC/A3TK and ATS contract management. Evaluation personnel assess ATS contractor performance of aircrew ground training programs to include Computer-Based Training (CBT), simulator training, and facilities. The KC-10 ATS site and Air Force-Appointed ATS Contracting Officer Representative (COR) will receive 45-day advance notice of the CCE (non-interference basis) via notification memo or email. Unit support may include the use of an inbrief/outbrief facility,

approximately 4-hours CBT time, and access to available crewmembers and staff for the purpose of conducting surveys and/or soliciting comments. Units should consider the CCE a unit-level feedback tool to monitor quality of ATS ground training.

1.4.2. Training Command. AMC/A3 is responsible for formal school syllabi and is the approval authority for any changes in coordination with lead and user commands according to AFI 11-202, Volume 1. AMC/A3 designates AMC/A3T to oversee formal school courses and syllabi management in coordination with the ATS contractor through AMC/A3TK. AMC/A3TF manages the Programmed Flying Training (PFT) process (see **paragraph 1.14**) and determines formal school flying capacity.

1.4.2.1. Progress Review (PR). See AFI 11-202, Volume 1 and associated KC-10 course syllabus. AMC/A3TK will notify Det 1 AMCAOS for ATS follow-on action, if required.

1.4.2.2. AETC maintains a list of formal school courses in the Education and Training Course Announcement (ETCA). The site address is: <https://etca.randolph.af.mil/default1.asp>.

1.4.3. User Commands.

1.4.3.1. Student Management. MAJCOM training staff will manage their student training requirements according to **paragraph 1.14.1.2**.

1.4.3.2. Recall Procedures. Requests to recall students from a formal school course must be sent from the student's unit to AMC/A3T and AFRC/A3T, as applicable. AMC/A3T will accomplish all necessary coordination with appropriate agencies. Emergency recall during non-duty hours may be coordinated directly with the schoolhouse with notification to AMC/A3T on the next duty day.

1.4.3.3. Training resources. User commands will evaluate training resources (aircraft and aircrews) required to accomplish training requirements and identify known shortfalls to A3 for resolution. Evaluations will be ongoing and revalidated every semi-annual period.

1.4.4. Wing Commander. Wg/CC will ensure unit/local level agencies and facilities support aircrew ground training programs. Host and/or co-located units will develop local agreements to consolidate aircrew training support base wide.

1.4.5. Operations Groups.

1.4.5.1. The OG/CC (or equivalent) will convene a training review panel (TRP) to be chaired by the OG/CC or a designated representative. Panel members should include representatives from squadron training, formal training unit (FTU), tactics, operations, safety and other areas as determined by the commander (i.e. ATS contractors, Host Aviation Resource Management (HARM) and Squadron Aviation Resource Management (SARM)).

1.4.5.1.1. TRP Requirements. Convene the TRP semi-annually and maintain minutes for a period of two years (commanders may increase this frequency as required). Squadrons and detachments not collocated with their OG may conduct their own panel or provide representation to the unit's TRP. Panel minutes from non-collocated squadron and detachment TRPs will be forwarded to the unit for inclusion in the unit's TRP.

1.4.5.1.2. TRP Format. The TRP should review staff and crewmember management actions necessary to complete squadron flight and ground training programs. Suggested TRP topics include, but are not limited to current and forecast flying training levels (FTL); upgrade and continuation training status; semi-annual and annual requirement completion rates; crew position gains/losses; and, aircraft commander, instructor and evaluator upgrades. OG/CC will also review all unit defined training “X” events for relevancy.

1.4.5.2. ADSCs. The OG/CC will develop and maintain procedures with their local servicing military personnel section (MPS) for individual crewmember counseling and personnel system updates affecting active duty service commitment (ADSC) incurred with training specified in this AFI. See AFI 11-202 Volume 1, AFI 36-2107, *Active Duty Service Commitments (ADSC)*, and Education and Training Course Announcements (ETCA) for more information.

1.4.5.3. The OG/CC may develop additional training requirements and/or programs as necessary to meet unit mission requirements. Include such requirements in local supplement.

1.4.5.4. OG/CC is responsible for establishing and maintaining the academic training program for non-ATS courses (may be delegated to squadron level). The OG (or squadron) OPR will:

1.4.5.4.1. Appoint primary and alternate instructors for each non-ATS course to be taught.

1.4.5.4.2. Publish a ground training schedule (AFRC as required) to include date, time, location, instructor and designated crewmembers for each course (both ATS and non-ATS). Include details in local supplement.

1.4.5.4.3. Use MAJCOM, ATS, or unit-developed training products and/or syllabi for all courses, as applicable. Units will reproduce courseware as applicable.

1.4.5.4.4. Develop a procedure to monitor the academic training program for course content, currency of materials, instructor availability, and status of training aids. Squadrons should recommend to the commander changes to existing courses or additional academic training courses required, based on crewmember feedback.

1.4.5.4.5. Units will develop local procedures for scheduling ATS courses. The unit training manager is responsible for procedures that minimize schedule changes and maximize training in the available time. Advise ATS contractor for scheduling changes and special training requirements.

1.4.5.4.6. Send recommendations for changes, additions, and deletions of courses through appropriate channels to appropriate MAJCOM with an information copy to AMC/A3T.

1.4.5.5. Instructor Selection and Training. OG/CC (or as delegated/specified in local supplement) will select course instructors (for non-ATS courses) on the basis of professional qualification and aptitude to instruct aircrew/students. Local academic instructor program will follow AFMAN 36-2236, *Guidebook for Air Force Instructors*. An individual instructor may receive course credit if instructing the class.

1.4.6. Squadrons. Sq/CC (or designated representative) will:

1.4.6.1. Select DOT Chiefs from the most highly qualified and experienced instructors. Previous evaluator or FTU experience is highly desired.

1.4.6.2. Ensure Sq/DOT is physically manned with a minimum of one instructor for each crew position. Instructors should be selected based on experience, availability, and time on station (to ensure continuity of operations for each crew position in DOT).

1.4.6.3. Convene a Squadron Training Review Panel (STRP) to be chaired by the Sq/CC and/or Sq/DO. Panel members should include squadron representatives from training, Stan/Eval, ADOs, and the chief from each crew position. Sq/CCs should utilize the STRP to focus training objectives, ensure standards are being met, select upgrade candidates, and ensure completion of required continuation training.

1.4.6.3.1. STRP Requirements. Squadrons will convene a STRP monthly (quarterly for AFRC) and maintain minutes for a period of two years. STRP minutes will be approved by the Sq/CC or Sq/DO and may be produced/distributed/stored electronically by the Sq/DOT.

1.4.6.3.2. STRP Format. The STRP should review staff and crewmember management actions necessary to complete squadron flight and ground training programs. The STRP will review the current status of aircrew training to ensure that current training objectives are being met and that those individuals selected for upgrade training are the best candidates after reviewing their experience, proficiency level, and retainability. To accomplish these goals, suggested STRP topics include but are not limited to: crew position gains/losses, current upgrade/requalification training (i.e., crewmembers in an active training status), recently completed training (including performance during training and current certification status), future training (individuals already approved via STRP), upgrade candidates, current waivers, projected waivers, and continuation training status.

1.4.6.4. Sq/CC will ensure crewmembers complete in-unit mission, ground and continuation training according to **Table 1.2**. Failure to reasonably progress may require action for removal.

1.4.6.5. Before each semi-annual training period, the Sq/CC will assign FTLs and levels of qualification to assigned and attached crewmembers (see **Chapter 4**). Use experience and aircraft proficiency as the basis of training level assignments.

1.4.6.6. Sq/CC (or designated representative) will ensure formal school student and supervisor post-graduate surveys are completed via the KC-10 ATS web page. The student post-graduate and “Ops Supervisor” survey will be completed within three months after scheduled Phase IB graduation date. The surveys can be found at www.kc10ats.com, click on “Graduate Survey”. Contact AMC/A3TK (DSN 779-2553) for assistance.

1.4.6.6.1. Sq/CC (or designated representative) will periodically review the “Graduate List” (that have not yet completed the Graduate Survey) for the appropriate location.

1.4.6.7. Ensure adequate training continuity and supervision of assigned and attached crewmembers. Unit commanders may assign additional requirements based on individual crewmember's experience and proficiency.

1.4.6.8. Sq/CC will review training and evaluation records of newly assigned or attached crewmembers and those completing formal training to determine the necessary training required to complete/certify the individual as Basic Aircraft Qualified (BAQ), Basic Mission Capable (BMC), or Mission Ready (MR). Document this review on AF Form 4023, *Aircrew Training Progress Report* as "initial review."

1.4.6.9. Coordinate with the operations group in developing training programs.

1.4.6.10. Review qualifications and monitor training requirements for unit assigned flight surgeons (FS).

1.4.6.11. Execute unit-level aircrew certifications described in this instruction and local supplement.

1.4.6.12. Ensure flight commanders or designated squadron representatives monitor quality of training being accomplished and identify training deficiencies. Squadron commanders must be advised of additional training needs.

1.4.6.13. Ensure, to the maximum extent possible, that flight training sorties (including those conducted when all Vol 1 training requirements for all crew positions have already been met) are required to meet aircrew, unit, or external user requirements.

1.4.7. Formal School with ATS Contractor. The KC-10 ATS contractor is responsible for academic and aircrew training device (ATD) instruction at all KC-10 training sites. This responsibility includes developing, updating and publishing courseware and the formal school syllabi in accordance with the ATS contract and published syllabi direction. See [Chapter 6](#) for additional ATS guidance.

1.4.8. Formal School, Non-ATS. See requirements in AFI 11-202, Volume 1.

1.5. Waiver Authority.

1.5.1. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items.

1.5.2. Do not deviate from the policies and requirements in this AFI. Report deviations and exceptions without waiver through channels to MAJCOM/A3 (or equivalent) who, in turn, should notify the OPR for follow-on action, if required. Units reporting deviations and exceptions will maintain copies of reported deviations/exceptions for two years. Waiver requests will include supporting rationale, the training start date, a summary of the unit's training plan, and estimated completion date. **(T-2)**

1.5.3. Unless otherwise specified, MAJCOM/A3T (or equivalent) is the designated waiver authority for specific aircrew training requirements in this AFI not governed by AFI 11-202, Volume 1 or other AFIs. **(T-2)**

1.5.3.1. OG/CC is the designated waiver authority for minimum flying hour prerequisites for entry into formal upgrade courses (see [Table 5.1](#) and [5.2](#)). (T-3)

1.5.3.1.1. Prerequisites. For waivers to formal school prerequisites see the appropriate formal course in the ETCA. The site address is: <https://www.my.af.mil/etcacourses/default1.asp>.

1.5.3.2. Formal School Training. The gaining unit's OG/CC is designated waiver authority for completion of formal school events required by the course syllabus. (T-3)

1.5.3.3. If required for squadron's designated mission, accomplish events waived or not accomplished at formal schools in-unit before assigning mission-ready (MR) status.

1.5.3.4. In-Unit Training Waiver. MAJCOM/A3T (or equivalent) is approval/waiver authority for in-unit method in coordination with AMC/A3T. Before approval, the appropriate syllabus and validation of ATS asset availability outside of the already assigned ATT and PTT timeframes must be provided to waiver authority. See [paragraph 1.10.2](#) for exception.

1.5.3.5. Senior Officer Course (SOC) syllabus waiver authority is AMC/A3 with concurrence of gaining MAJCOM/A3. Refer to AFI 11-202, Volume 1 for SOC policy and eligibility requirements. (T-2)

1.5.3.6. Continuation Training Waiver. AMC/A3 designates OG/CCs of AMC and AMC-gained units as the waiver authority for semi-annual and currency ground training events as specified in [Table 4.1](#) and [4.2](#) and flying continuation training requirements in [Table 4.3](#) and [4.4](#) for assigned or attached crewmembers on a case-by-case basis (see [paragraph 4.9](#)). Waivers for training events missed in consecutive training periods will require MAJCOM/A3T approval. (T-2)

1.5.4. Waiver Format. For AMC waivers, use the Graduate Training Integration Management System (GTIMS) waiver management module. GTIMS waiver system is optional for AFRC units. Ensure the appropriate Volume 1 reference paragraph to be waived is included in the waiver request. If unable to use the GTIMS waiver management module, submit a written waiver in the format at [Figure 1.1](#) to the appropriate MAJCOM OPR. AFRC units submit written requests through AFRC NAF/A3T to AFRC/A3TA. AFRC/A3TA will send response to AFRC unit with copies to AMC/A3TK. Mark not applicable items as "N/A." Asterisked (*) items are required for processing. Place copies of all flying and ground training waivers (including training time extensions) in the individual's training folder. OG/CC or designated unit agency will maintain a record of approved waiver(s). Retain unit file copies for a minimum of two years IAW the AF Records Disposition Schedule at: <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>.

Table 1.1. Processing Waivers to AFI 11-2KC-10, Volume 1.

Waiver Initiated By:	Send waiver request to:	Waiver Reply Will be Sent to:	With Information Copy To:
Regular Air Force AMC Wing or Group	AMC/A3TK	OG/CC	N/A

AFRC Unit	AFRC NAF/A3T to AFRC/A3TA	AFRC Unit	AMC/A3TK
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Figure 1.1. Sample Waiver Request Format.

<p>MEMORANDUM FOR (<i>Waiver Authority</i>)</p> <p>FROM: (<i>Requester</i>)</p> <p>SUBJECT: Waiver Request – (<i>Individual</i>), (<i>Type of Waiver</i>)</p> <ol style="list-style-type: none"> 1. <i>*Name and grade.</i> 2. <i>*Flying organization (assigned or attached).</i> 3. <i>*Present qualification (include special qualifications/certifications if appropriate).</i> 4. <i>*Total flying time; primary aircraft inventory (PAI) time (include instructor or evaluator time, if applicable).</i> 5. <i>*Waiver request specifics e.g., cite requirement and requested deviation.</i> 6. <i>*Rationale or justification for waiver request.</i> 7. <i>Crew qualification to which person is qualifying or upgrading.</i> 8. <i>Previous attendance at any formal instructor course (include course identifier and graduation date).</i> 9. <i>Training start date.</i> 10. <i>If waiver request for time limit, specify mandatory upgrade or qualification date.</i> 11. <i>Date event last accomplished and normal eligibility period.</i> 12. <i>Remarks (include formal school courseware that is required if the waiver request is approved (e.g. local training).</i> 13. <i>Unit point-of-contact (include name, rank, telephone number, and functional address symbol, and Email address).</i> 14. <i>*Unit address (if requesting formal school courseware)</i> <p>(<i>Signature of Requester</i>)</p> <p>(<i>Title</i>)</p>

1.6. Use of Flying Hours.

1.6.1. Structure unit flying training missions to achieve optimum training. Any by-product airlift opportunity resulting from training must not degrade the intended training and will comply with applicable Department of Defense (DoD) Regulation 4515.13-R, *Air Transportation Eligibility*, AFI 11-401, *Aviation Management* and AFI 11-202 Volume 1, *Aircrew Training*.

1.6.1.1. It is essential that all personnel at all levels prevent the misuse of air mobility resources as well as the perception of their misuse when planning and executing local or off-station training missions.

1.6.1.2. See AMCI 11-208, *Tanker/Airlift Operations*, for off-station training flight requirements.

1.6.2. Training on Operational Missions. Unless specifically prohibited or restricted by weapon system operating procedures or specific theater operations order (OPORD), the OG/CC may approve upgrade, qualification or special qualification/certification training on operational missions. See passenger-carrying restrictions in AFI 11-401 and AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures*.

1.6.2.1. Commanders will ensure the training will not impact mission effectiveness and the crewmember receiving training is under the supervision of an instructor of like specialty. In the event the mission changes and the training status may affect the ability of the crew to fly the mission, the instructor will ensure coordination between OG/CC and 618 AOC (TACC) prior to accepting the mission.

1.6.3. Unit Commanders will utilize aircrew training devices (Weapons Systems Trainer (WST), Boom Operator Trainer (BOT), etc.) for continuation training to the maximum extent possible.

1.7. In-Unit Training Time Limitations. Comply with the time limitations in [Table 1.2](#) for mission certification training (MCT) and in-unit training. **Note:** for Phase IA and IB time limitations of formal KC-10 qualification, upgrade, and requalification courses refer to **Table A3.3**. Crewmembers entered in an in-unit training program leading to upgrade qualification (or requalification) will be dedicated to that program on a full-time basis (i.e. no training or extra duties that do not directly contribute to upgrade certification). **Exception:** Supervisory personnel may continue their normal duties as time permits. In-unit training will begin no later than 45 days (90 days AFRC) after reporting or being attached to a new duty station or unit.

Table 1.2. In-Unit Training Time Limitations.

Training	Time Limit	Time Limit AFRC	Notes
Requalification	90 days	180 days	2
Aircraft Commander Upgrade Qualification	90 days	180 days	
Instructor Upgrade Qualification	60 days	180 days	
Mission Qualification/Certification (MCT). Includes in-unit training leading to MR status following initial, difference, or requalification training.	100 days (FBP only) 130 days (BBQ only) 90 days (All others)	240 days (FBP only) 300 days (BBQ only) 180 days (All others)	1
NOTE: 1. MCT starts on the first duty day following the successful completion of a Phase IB evaluation. Mission certification training events (ground and flight) may be accomplished concurrently with Phase IB training when deemed appropriate by the FTU Chief, squadron DO, or DOT. 2. Not for Form 8 downgrades. Additional training due to a Form 8 downgrade is set by AFI 11-202, Volume 2.			

1.7.1. Training Time. Non-MCT training time start date is the date when the first significant training event (a training event directly contributing to qualification, requalification, or upgrade, e.g. Computer Based Training (CBT) lesson, Part Task Trainer (PTT), WST, Flight Training Device (FTD), BOT, Aircrew System Trainer (AST), ground training, flight training) is started or 45 days (90 days AFRC) after being attached or assigned to the unit after completion of the formal school, whichever occurs first. Voluntary self-study prior to course start date does not count as training time start date (see **paragraph 2.2.2**). See **Table 1.2, Note 1** for MCT training time. Training time ends with the successful completion of one of the following events: flight evaluation (if required as part of the training program), instructor validation of successful program completion (“sign-off”), or squadron commander certification (if required as part of the training program).

1.7.2. For in-unit (not FTU) Phase I and MCT training, Sq/CC may extend training time up to 60 days (120 days ARC). No notification to MAJCOM/A3T is required for the Sq/CC extension. Extensions exceeding 60 days (120 days for AFRC) require MAJCOM/A3T (or equivalent) approval. Units will notify the appropriate MAJCOM/A3T (or equivalent) via the waiver request procedures specified in **paragraph 1.5.4**, before the crewmember exceeds upgrade training time limits in **Table 1.2**. Include training difficulty, unit corrective action to resolve and prevent recurrence, and estimated completion date in the waiver request. **(T-3)**

1.8. Training Documentation. Units will use the AF Form 4324, *Aircraft Assignment/Aircrew Qualification Worksheet* as prescribed by AFI 11-202, Volume 1, to update aircrew certifications in ARMS. See **Chapter 7** for specific “Q” codes. See **Attachment 2** for additional training documentation requirements.

1.9. Flight Examiner Usage. Use flight examiners as instructors for any phase of training to capitalize on their expertise and experience. Units may use flight examiners as instructors for qualification, upgrade, and corrective action training. If an examiner is used as a primary instructor to train an individual, the same examiner will not administer the associated evaluation.

1.10. Instructor Training and Supervision Requirements:

1.10.1. All instructors should be MR (wing level and below).

1.10.2. Instructor candidates who previously attended a formal instructor school for instructor qualification and were qualified instructors in any US Air Force aircraft and who meet the minimum flying hour requirements may upgrade in-unit with OG/CC approval. Sq/CC will determine training required to complete the instructor upgrade in-unit, including evaluations IAW AFI 11-2KC-10, Volume 2, *KC-10 Aircrew Evaluation Criteria*. **(T-3)**

1.10.3. Formal Training Unit (FTU) Instructors. Regular Air Force (RegAF) Operations Support Squadrons are provided with staff authorizations (pilot, flight engineer, and boom operator) over and above the crew force. Positions are allocated per AMC manpower standard (AMCMS) to support initial qualification, requalification, upgrade, and continuation training requirements at each KC-10 main operating base (MOB). Personnel assigned to these positions must be very capable and highly experienced, both as instructors and KC-10 aircrew members. All FTU instructors must be thoroughly familiar with KC-10 course books, training requirements, operational techniques, and the contractor training program. Assigned instructors will have an Associate’s Degree or higher within one year of being assigned to FTU instructor duty.

1.10.3.1. Faculty Training Course (FTC). The Faculty Training Course is taught at the FTU to prepare newly assigned instructors for schoolhouse duties. This course will be locally developed and updated as necessary. All instructors conducting initial qualification flying training should be graduates of FTC.

1.10.4. Instructor Supervision Requirements. When performing aircrew duties, the following personnel must be under the supervision of an instructor:

1.10.4.1. All non-current crewmembers. For non-current crewmembers, direct instructor supervision is required while performing the non-current event. (See **paragraph 4.9** for exceptions.)

1.10.4.2. All crewmembers in initial, or requalification flying training, or upgrade students flying an upgrade syllabus sortie as a student (see **paragraph 1.10.4.5.2**).

1.10.4.3. Any other personnel designated by the Wg/CC, OG/CC, or Sq/CC.

1.10.4.4. All unqualified or flying training level (FTL) "E" crewmembers require direct instructor supervision during critical phases of flight.

1.10.4.5. Exceptions to **paragraph 1.10.4** Instructor Supervision Requirements:

1.10.4.5.1. Instructor supervision is not required for pilots certified by the Sq/CC to conduct receiver AR under the supervision of a Sq/CC certified Aircraft Commander.

1.10.4.5.2. Flight Engineer and Boom Operator students in instructor upgrade training may fly, on a limited basis, without instructor supervision, as a crewmember in their previous position provided they are current and qualified in that position in order to seat-fill FTU sorties, as required (i.e. a current and qualified mission ready Flight Engineer (MF) in upgrade to IF may fly unsupervised as an MF). If flying as an FTU student, the instructor supervision requirement of **A3.1.1.1** applies as the member is now in a "student" status for upgrade to the next higher crew position.

1.10.4.5.3. During FTU training, two Instructor Aircraft Commander (IAC) students (or one PCO student and one IAC student) may sit in the seat together for all events in which they are current and qualified.

1.10.4.5.4. For IAC training, selected aircraft events (Formation (F020), AR Formation (F060), and Tanker AR, Autopilot-off (R080)) do not require the IAC student to be at a set of controls; the IAC student must demonstrate the ability to instruct to a proficient level while the event is being accomplished.

1.10.4.5.5. At a minimum, IP supervision is required for all tanker AR accomplished by students pursuing qualification, whether in-unit or in the FTU, who are recommended for supervised AR.

1.11. Distribution. Units will establish the necessary hard copy or electronic device distribution requirements of this AFI, as applicable.

1.12. Transfer of Aircrews.

1.12.1. When a crewmember transfers from one unit to another, the gaining unit will review, assess and assign the appropriate FTL. During the review, the gaining unit will normally honor the losing unit's assigned training level. Certified/qualified MR crewmembers

transferring between units accomplish only unit-specific training and any applicable events in which they have lost currency. See [paragraph 3.3.5](#) and [3.4.2](#) for additional information in regards to transfer of aircrew members.

1.12.2. For Foreign Military Sales, guest pilots, and/or exchange officers, see training requirements in AFI 11-401. Initial and/or continuation training requirements are specified in the appropriate MOU, OPLAN, or agreement and should mirror requirements of this AFI to the maximum extent possible.

1.13. Aircrew Training While DNIF. Crewmembers whose status is duty not including flying (DNIF) may log ground training events (including simulator) if the member's physical condition allows it. If the crewmember's ability to complete training is in question, consult the flight surgeon signing the AF Form 1042, *Medical Recommendations for Flying or Special Operational Duty*, placing the crewmember in a DNIF status IAW AFI 48-123, Volume 3, *Medical Examinations and Standards, Flying and Special Operational Duty* if the DNIF status includes ground training limitations.

1.14. Aircrew Rated Management Overview.

1.14.1. Programmed Flying Training (PFT). AMC/A3T fulfills the training command's role IAW AFI 11-202, Volume 1. A key product of this process is the PFT. The PFT balances available training quotas, ATS throughput, schoolhouse capacities and course requirements on a Fiscal Year basis. Annually, units will send projected PFT requirements to their respective MAJCOM quota managers, who in turn compile and forward projections to AF/A3OI, for inclusion into the Graduate Program Requirements Document (GPRD). Training commands will determine training capacity and report shortfall in the GPRD to AF/A3OI.

1.14.1.1. AF/A3OI sponsors an annual PFT conference for attendees to balance training capacity, MAJCOM training requests, and pipeline Undergraduate Flying Training students (Rated and Career Enlisted Aviator (CEA)) against Formal Training Unit (FTU) capacity. The training command allocates approved quotas to user commands, which in turn allocate training quotas to subordinate units. The training command publishes the annual PFT quota workbook.

1.14.1.2. Throughout the training year, MAJCOM training staff and PFT managers use assigned/allocated training quotas to assign individual crewmembers to formal training quotas. Daily student quota adjustments to the annual PFT are made on quota management documents.

1.15. Information Management. AMC/A3T hosts aircrew training information on a military website. Training event descriptions are maintained on the website, as well as non-ATS training courses (e.g., GRACC, FM Immunity, ATD status, host nation agreements (HNA), etc.). Site is: <https://eim.amc.af.mil/org/a3t/default.aspx>.

1.16. Failure to Progress or Complete Training. If the training received leads to a qualification or certification that must be met for the unit's mission, comply with syllabus guidelines. If a crewmember fails to complete a formal course, the formal school will send a recommendation to the individual's gaining unit. The recommendation will state whether he or she should complete training in-unit, return to the formal school to complete training, or be referred to the AF personnel system for reassignment.

1.16.1. Progress Review Board (PRB). If a student fails to progress in accordance with the requirements in this volume, the trainee's gaining flying unit Sq/CC will conduct a progress review. A PRB will be convened to review the trainee's records and recommend continuing training, re-training, modify training, or a Flight Evaluation Board (FEB). OG/CC will have final approval of PRB recommendations. (See AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*, for FEB and administrative procedures. **Note:** In certain situations, AFI 11-402, **Chapter 3** and **4** outline additional information regarding removal from training short of the FEB process for initial CEA training.) The ATS contractor will identify students who fail to progress IAW the applicable ATS guidance as outlined in **Chapter 6**.

1.16.1.1. The make-up of the PRB will be at the Sq/CC's discretion, but will include, as a minimum, Sq/CC, OST and OGV representatives, and the FTU Chief. Phase I ATS and Det 1 (or Det 1 designated attendee) will be represented as well.

1.16.2. Supervised Status/Retraining. Each unit will determine their process for documenting performance which would put a crewmember into a supervised status. This process will include how and where to document the crewmember's retraining. As a minimum, an AF Form 4022, *Aircrew Training Folder*, or electronic equivalent is opened for the retraining unless waived IAW **paragraph A2.1.1.1**. The crewmember's unit should develop a training plan, coordinate training resource requirements through OSS/OST, then gain Sq/CC approval. For those individuals being trained at the FTU (initial qualification, requalification, and upgrade), FTU instructor(s) will coordinate the training plan and gain FTU Chief approval. The AF Form 4025, *Aircrew Summary/Close-Out Report*, or electronic equivalent documenting the completed training will then be given to the unit's Stan/Eval section IAW **paragraph A2.1.5** and the crewmember will be rechecked at the Sq/CC's discretion (exercised through Stan/Eval).

1.17. Career Enlisted Aviator Skill Levels. CEAs are not tied to AFI 36-2101, *Classifying Military Personnel (Officer and Enlisted)*, and skill level upgrade. All enlisted aircrew qualifications are separate and distinct from skill level qualification. When AF Form 8, *Certificate of Aircrew Qualification* as prescribed in AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program* is completed for the applicable flight evaluation, then that crewmember is qualified to perform all duties assigned to that crew qualification regardless of skill level. Aircrew instructor and flight examiner qualifications are also separate and distinct from on the job training (OJT) trainer or certifier designation and are reflected in AFSC by use of "K" prefix (aircrew instructor), "T" prefix (aircrew FTU instructor), and "Q" prefix (standardization and evaluation flight examiner).

1.18. Aircrew Training Quota Management. The following information describes AMC's policy and procedures for quota management. This policy is mandatory for all AMC units; all other units follow their MAJCOM guidance.

1.18.1. Wing training offices (OSS/OST) will submit the rank, full name, SSAN, course, and class number via e-mail to AMC/A3TF NLT 45 days prior to class start date (CSD). Training quotas not filled 45 days prior to CSD will be offered to the next unit on the AMC/A3TF standby list. OSS/OST should confirm all scheduled training with their units at least 10 days prior to CSD to ensure notification of training, active duty service commitments are established, and orders issued.

1.18.1.1. All course prerequisites will be completed NLT 30 days prior to CSD to allow for remedial training or substitution. Units will internally identify an alternate candidate for each allocated quota. If the primary candidate becomes unavailable, notify AMC/A3TF with the alternate's information.

1.18.1.2. Foreign exchange officers cannot be locally substituted (they must also be identified when submitted to load against an allocation), send the replacement's full data to AMC/A3TF.

1.18.1.3. Return all unused quotas to AMC/A3TF NLT 45 days prior to CSD.

1.18.1.4. All no-shows and late cancellations within 7 days of CSD must be explained. Forward an initial report of circumstances to AMC/A3TF Quota Manager within 24 hours of notification. This initial notification will be followed by a memorandum of explanation from the OG/CC to AMC/A3T within one week. Please send the e-mail to: AMC.A3T@us.af.mil and courtesy copy the appropriate AMC/A3TF Quota Manager.

1.18.1.5. Send requests for additional quotas to AMC/A3TF. If unit capability is in jeopardy, AMC/A3TF will coordinate with Air Staff to add/or reallocate additional quotas. AMC/A3TF quota managers will coordinate with the wing training offices (OSS/OST) exclusively. Squadrons or individuals will be referred to their OSS training office. Please submit the name/phone number/e-mail for the primary and alternate point of contact for quota management in wing training office.

1.18.1.6. AMC units are prohibited from coordinating quota exchanges with other commands. OSS/OST training offices will forward all requests to the AMC quota manager for coordination with other commands. Please allow for extended coordination time when considering this option.

1.18.2. HQ AMC Orientation Tour / GRACC. GRACC is an Aircraft Commander overview of the offices and functions of Air Mobility Command. Questions regarding GRACC can be referred to the POC at AMC.A3TA@us.af.mil.

1.18.3. Senior Officer Training coordination. Questions regarding Senior Officer training Course (SOC), availability and prerequisites can be forwarded to AMC/A3TF at DSN 779-3577. No formal actions to schedule training will be taken until directed by AF/DPO or AF/DPG in conjunction with MAJCOM Senior Leaders Management offices.

Table 1.3. Seating Chart.

		RIGHT SEAT						
		IP	MP	FPL	FPK	FPQ	FPC	FPN
LEFT SEAT	IP	Y	Y	Y	Y	Y	Y	Y
	MP	Y	Y (4)	Y (2,4)	Y (2,4)	Y (2)	Y	CO (1,5)
	FPL	Y	Y (2,4)	CO (3)	CO (1,3)	CO (1,3)	CO (1,3)	CO (1,3,5)
	FPK	Y	Y (2,4)	CO (1,3)	CO (1,3)	CO (1,3)	CO (1,3)	CO (1,3,5)
	FPQ	Y	Y (2,4)	CO (1,3)	CO (1,3)	CO	CO	CO (1,3,5)

						(1,3)	(1,3)	
	FPC	Y	N	N	N	N	N	N
	FPN	Y	N (5)	N (5)	N (5)	N	N	N

Y – Yes, N – No, CO – Cruise Only

NOTES:

1. Assumes IP supervision (not “Direct” IP Supervision).
2. MP requires appropriate certifications for supervision of receiver AR or Touch and Go’s (Q051, Q052) as appropriate.
3. Tanker AR OK.
4. Right seat occupant must have right seat Receiver AR cert (Q584) if planning to conduct receiver AR.
5. If SOC qual or HQ AMC Staff, Tanker AR OK. **SOC graduates are restricted to left seat only.

Definitions:

FPL – Qualified Mission Ready (MR). FPLs who have not acquired enough PAA hours for AC certification, but have completed all local mission ready training requirements.

FPK – Qualified Non-Mission Ready (NMR). Graduate of aircraft commander or requalification course (ACIQ, ACQ, PCO, PRQ, IPRQ), in local mission ready training.

FPQ – Qualified Mission ready Phase II MPD Pilot

FPC – Qualified Mission Ready Phase I MPD Pilot

FPN – Qualified Non-Mission Ready (NMR)

Exceptions:

- A. This table does not apply to FTU. FTU will refer to **Attachment 3** for guidance.
- B. For additional instructor supervision requirements, refer to **paragraph 1.10.4**.
- C. Squadron leadership or Aircraft Commanders may be more restrictive on seat assignments.

Chapter 2

INITIAL QUALIFICATION TRAINING (IQT)

2.1. General Requirements. AFI 11-202, Volume 1 defines initial qualification training. This chapter specifies minimum training requirements for initial qualification, requalification, conversion/difference qualification, and senior officer courses. Phase IA training is provided by the ATS contractor and consists of academic training and various ATDs. Following successful completion of Phase IA, Phase IB is conducted at the Formal Training Unit (FTU) where aircraft training is received. MCT training completes all remaining mission ready and qualification/certification training requirements. The sole method of KC-10 initial qualification is to attend and complete the appropriate formal training course listed at the ETCA website. The website address is: <https://etca.randolph.af.mil/default1.asp>.

2.2. IQT Prerequisites. Complete IQT prerequisites in accordance with **Table 6.1**, course syllabi, and AFI 11-202, Volume 1.

2.2.1. First Assignment Instructor Pilots (FAIPs), Operational Support Aircraft (OSA) Aircraft Commanders, and Major Weapon Systems (MWS) aircraft commanders meeting flying hour requirements in **Table 6.1** complete Aircraft Commander Initial Qualification (ACIQ) course. Graduates of Specialized Undergraduate Pilot Training (SUPT), pilots coming from Remotely Piloted Aircraft (RPA) assignments, and pilots not meeting the flying hour requirements will complete Pilot Initial Qualification (PIQ) course and comply with the Mobility Pilot Development (MPD) program described in **paragraph 5.2**. Enlisted aircrew members coming from RPA assignments will complete the Basic Boom Operator Qualification (BBQ) or Flight Engineer Basic Prequalification (FBP)/Flight Engineer Initial Qualification (FIQ) courses. **(T-3)**

2.2.2. Before starting a formal initial qualification course, the student may begin training (e.g. CBT, workbooks, etc.) as permitted by the course syllabi. Voluntary self-study prior to course start date does not count as training time start date. See **paragraph 1.7.1**.

2.3. Ground Training Requirements. Complete ground training requirements for initial qualification in accordance with AFI 11-202, Volume 1 and **Chapter 2** and **6** of this publication. During formal training, aircrews may complete (and receive credit) for Aircrew-Specific Mobility Training events in **Table 4.2**. See the appropriate formal training course syllabus.

2.3.1. All events in **Table 2.1** may be accomplished either at formal school or in-unit during mission qualification/certification training. Do not delay graduation from FTU awaiting ground training. A Flight Physical, Physiological Training, G002, LL01, LL03, and SS01 are prerequisites prior to the first aircraft flight. The FTU will provide the gaining unit with documentation indicating completion of items from **Table 2.1**.

2.3.2. Completion of initial survival schools according to AFI 16-1301, *Survival, Evasion, Resistance, and Escape (SERE) Operations*, and initial aircrew flight equipment familiarization (during formal school) will establish the follow-on due dates (based on the date first completing the course) for recurring training requirements.

Table 2.1. Initial Qualification Ground Training Requirements.

Code	Event	Crew Position	Notes
E030	Primary Passport (Application)	All	6,8
G002	Aircraft Marshaling Training and Examination	All	1,4,5
	Flight Physical	All	1,4
	Physiological Training	All	1,4
G060	Aircrew Tactics Continuation Training	All	4,6
G070	Aircrew Intelligence Training (AIT)	All	4,6
G080	Communications Procedures	All	4,6,10
G090	Anti-Hijacking	All	3,4
G100	Law of Armed Conflict (LOAC)	All	3,4
G120	ISOPREP Review	All	4,6
G130	Instrument Refresher Course (IRC)	P	4
G150	Approach Plate Familiarization Training	FE,BO	3
G160	Overwater Navigation Procedures	P	3
G180	Cargo and Passenger Handling Procedures	BO	
G182	Hazardous Cargo Training	P,BO	4,6
G190	Aircraft Servicing	All	6
G231	Initial Crew Resource Management (CRM)	All	4
G272	Boom Operator Cockpit Orientation CBT	BO	1,6
G280	Small Arms Training	All	4
G400	AIR Card User Training	AC,FE	4,6
LL01	Aircrew Flight Equipment Familiarization	All	1
LL03	Emergency Egress Training - Non Ejection Seat	All	1
LL04	Aircrew Chemical Defense Training (ACDT)	All	6
LL05	Egress Training with ACDE	All	6
LL06	Aircrew Flight Equipment Training (AFET)	All	4
Q001	Open Book Qualification Examination	All	
Q002	Closed Book Qualification Examination	All	
SS01	Local Area Survival Training	All	1,4,7
SS20	Combat SERE Training, Wartime Level C	All	2,3,4,6
SS32	Water Survival Training, Non-Parachuting	All	2,3,4,6
VT01	Initial VTRAT	All	6,9

NOTES:

1. Required prior to first aircraft flight. Mandatory grounding item; individual will not fly until required training is accomplished. Flight physicals become due 366 days after the previous physical, and expire after the 455th day or as indicated on the AF IMT 1042, whichever occurs first. The required frequency may vary to address waivers and/or individual physical limitations (as determined by the Flight Surgeon), but in no case will exceed 455 days.
2. Accomplish SS02 or SS05 if more than 36 months since completion of SS20 or SS32.
3. Crewmembers in initial qualification or requalification are required to complete prior to flying to destinations OCONUS.
4. AFI 11-2KC-10, Volume 1 is not the governing directive for completion of this event. IAW AFI 11-202, Volume 1, **paragraph 6**, refer to reference publications which provide guidance for accomplishment of ancillary training requirements.
5. Accomplish within 30 days of initial assignment or PCS per AFI 11-218, *Aircraft Operations and Movement on the Ground*.
6. Not required for BAQ, BMC crewmembers (i.e. crewmembers assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), and USAF Expeditionary Center), or Senior Officers.
7. Required prior to first flight at home station; students attending training at a location other than their permanent assigned base require SS01 prior to first flight at the training location as well.
8. To be certified as mission ready the individual is only required to submit the application for passport.
9. Prior MWS Initial VTRAT does not satisfy the requirement of VT01. Prior MWS crew members must attend VT01 for the KC-10.
10. For Flight Engineers and Boom Operators, only the Iridium Phone training portion of G080 is required

2.4. Flying Training Requirements. Complete flying training requirements for initial qualification in accordance with AFI 11-202, Volume 1; AFI 11-2KC-10, Volume 1, **Chapter 3** and **Attachment 3**; and published KC-10 course syllabi.

2.5. Conversion/Differences Qualification Training Requirements. When possible, qualified personnel in other units will provide the initial cadre. In some instances, it will be necessary for units to form an initial cadre of aircrew personnel for whom certain training qualification requirements may be waived. The following conditions will apply to the management of initial cadre aircrew qualification:

2.5.1. Form a nucleus of instructor and flight examiner personnel (initial cadre) to begin aircrew conversion/differences training. Converting units may request initial cadre waiver of primary aircraft inventory (PAI) time requirement. Send waiver request through MAJCOM training staff in the format in **paragraph 1.5.9**. Additionally, include the most recent aircraft flown and total time in that aircraft in the remarks section. **(T-1)**

2.5.1.1. Initial cadre will not be designated in a crew position higher than currently held, e.g. C-130 mission pilot (MP) to KC-10 examiner pilot (EP), unless previously qualified at that level in the conversion aircraft, i.e. prior KC-10 EP.

2.5.1.2. After final approval, publish a unit letter to identify initial cadre of instructors and flight examiners by crew qualification.

2.6. Multiple Qualifications. Crewmembers will attend a formal initial qualification course for dual qualification in different MDS aircraft. Crewmembers maintaining dual qualification in different model aircraft will, as a minimum, maintain FTL A currency requirements in each aircraft (N/A for senior officers; see **paragraph 2.7**). Further guidance on multiple qualifications is available in AFI 11-202, Volume 1, **paragraph 2.6**.

2.7. Senior Officer Qualification Training Requirements. AFI 11-202, Volume 1 identifies senior officer qualification requirements. Senior Officer Course (SOC) graduates will be assigned FTL E for continuation training purposes, and will not fly unsupervised in a primary crew position (see **paragraph 4.3.1.4**).

2.7.1. After qualification IAW AFI 11-202, Volume 1, and with OG/CC approval, senior officers (assigned or attached) may seek training which leads to a higher FTL and/or qualification. The unit OSS/OST office is responsible for determining training requirements based on the senior officer's flying experience and familiarity with the weapons system. AMC/A3T or appropriate MAJCOM/A3T will approve the proposed training plan prior to execution. **(T-2)**

2.7.2. In order to keep the course length to a minimum, and maximize the students' training time, a suite of CBT lessons must be viewed prior to attendance at the Senior Officer Course. These CBT lessons can be found at <https://www.kc10ats.com>. Contact AMC/A3TK for assistance (DSN 779-2553).

2.7.3. As a minimum, Senior Officers and all other crewmembers maintaining BMC or BAQ status in the KC-10 will maintain FTL E requirements. Senior Officers on MR status will comply with **Table 4.3**. FTL E crewmembers must always fly with an instructor of like specialty. This requirement also applies to additional aircraft an individual may be qualified in (see multiple qualifications). See AFI 11-2KC10, Volume 3, AFI 11-202, Volume 1, and AFI 11-401 for additional restrictions when flying with passengers.

2.8. Flight Surgeons. Flight Surgeons are allowed to fly locally as defined by OG/CC and log time in their primary MDS while in training for initial (mission) qualification. See AFI 11-202, Volume 1 for training requirements.

2.9. Requalification Training (RQT). An aircrew member is unqualified upon expiration of the qualification evaluation, loss of currency exceeding 6 months (for the following currency items, Pilots: P020, P070, P190, and R010 – current Form 8 with receiver AR qualification. Flight Engineers: M010. Boom Operators: R120 and P300.), failure of a periodic or spot evaluation, when down-graded by the Sq/CC, or completion of a qualification evaluation in a different MDS (unless authorized multiple qualifications). The duration of unqualified time is from the date the aircrew member became unqualified until the specific retraining start date. For Active Duty Service Commitments for aircrew training, see AFI 36-2107. See AFI 11-202, Volume 1 for additional requalification training limits and requirements. NOTE: Additional training requirements as a result of an unsatisfactory evaluation (periodic or spot) or commander-directed downgrades are at the discretion of the evaluator and timeline for completion is IAW AFI 11-202 Volume 2. Unit training organizations will coordinate with unit Stan Eval to track completion and review status at monthly squadron TRPs.

2.9.1. Requalifying KC-10 crewmembers will complete in-unit or formal school training (IAW AFI 11-202, Volume 1) and accomplish those mission qualification/certification events from [Table 2.1](#), [3.1](#), [4.1](#), and [4.2](#) that have expired or are overdue. See [Table 1.2](#) for in-unit training timeline.

2.9.1.1. Training items to be accomplished during the requalification will be determined by a thorough review of the individual's flying training/history documentation conducted by the appropriate training authority (Sq/DOT for in-unit requalification, or FTU if formal school requalification). These items will be annotated on the AF Form 4024, or electronic equivalent, in the individual's training folder and specified on the in-unit requalification letter if applicable.

2.9.2. Former KC-10 instructors may accomplish instructor requalification concurrent with basic requalification (in-unit or formal course) for their crew position. In all cases of loss of qualification exceeding 39 months, all special qualifications and certifications must be re-accomplished. If the gaining squadron commander determines that the individual requires additional seasoning prior to performing instructor duties, an individual can be certified as an aircraft commander (pilots) or basic qualification (flight engineers/boom operators) until the squadron commander determines the individual is ready to be certified as an instructor.

2.9.3. Requalification Training Courses. Unqualified crew members will complete the appropriate TX-1, TX-2, TX-3 (longest to shortest) courses outlined below.

2.9.3.1. Pilot, Flight Engineer, and Boom Operator TX-1, TX-2, TX-3 Courses:

2.9.3.1.1. Unqualified KC-10 crewmembers (over 8 years) will complete the Initial Qualification (PIQ, ACIQ, FIQ, BBQ) formal school flying training course (TX-1) and a flight evaluation. An active duty or reserve service commitment is required IAW AFI 36-2107, *Active Duty Service Commitments (ADSC)*.

2.9.3.1.2. Unqualified KC-10 crewmembers (greater than 39 months at the end of a non-flying assignment or 51 months at the end of any active flying assignment up to 8 years) will complete the Pilot Requalification (PRQ), Flight Engineer Requalification (FRQ), and Boom Operator Requalification (BRQ) formal school flying training course (TX-2) as appropriate and a flight evaluation. An active duty or reserve service commitment is required IAW AFI 36-2107, *Active Duty Service Commitments (ADSC)*.

2.9.3.1.3. Unqualified KC-10 crewmembers (up to 39 months at the end of a non-flying assignment or 51 months at the end of any active flying assignment) will complete a Sq/CC directed requalification (TX-3) course in-unit and a flight evaluation. **Note:** The Requalification formal school flying training courses in [paragraph 2.9.3.1.2](#) may be substituted for the in-unit training. An active duty or reserve service commitment is required for in-unit or formal training course IAW AFI 36-2107, *Active Duty Service Commitments (ADSC)*.

2.9.3.1.3.1. Squadron commanders may tailor or expand the TX-3 course based on individual proficiency and experience. Unqualified pilots will complete training in all delinquent items, additional training as directed by the squadron commander, and a flight evaluation. The flying unit Sq/CC will determine requirements for accomplishment of events from [Table 3.1](#) that are not

continuation training events, e.g. Fighter Deployment Operations (M260).

2.10. Formal Training Unit (FTU) Guidance. The KC-10 Formal Training Units conduct training at two schoolhouses located at Travis AFB and Joint Base McGuire-Dix-Lakehurst. Specific course information is located in **Attachment 3** and KC-10 formal course syllabi located on the ATS website: <https://www.kc10ats.com> and the Electronic Flight Bag (EFB).

Chapter 3

MISSION QUALIFICATION AND CERTIFICATION TRAINING

3.1. Description. This chapter establishes minimum mission ready criteria and training requirements to be accomplished during mission certification training (MCT). Except where specifically stated, squadrons may arrange mission sequence or sequence of items as necessary to use flying training hours effectively and accomplish the unit mission. All crewmembers will complete initial qualification (Phase IA/IB) and MCT, but are not necessarily required to be certified in the unit's mission before entering special certification (i.e. large formation, formation lead, etc.) training. Crewmembers in MCT may participate in exercises (see **paragraph 1.6.2**).

3.1.1. Mission certification is the primary certification and must be completed prior to crewmembers deploying.

3.2. Time Periods for Mission Certification Training. See **Table 1.2**. During this period, crewmembers will complete remaining requirements from **Table 2.1** and flying training requirements in **Table 3.1**. Upon successful completion, a crewmember will be mission ready (MR) after review and certification by Sq/CC or a Review and Certification (R&C) Board for all aircraft commanders (AC) and all instructor candidates according to AFI 11-202, Volume 2, AMC Supplement.

3.2.1. Upon completion of all MCT requirements from **Table 2.1** and **3.1**, PCO, ACIQ and PRQ graduates will be counted as MR pilots for Status Of Resources and Training Systems (SORTS) and TRP purposes and may fly as an FPL on any crew, including operational missions. PCO, ACIQ and PRQ graduates are not MPs and may not fly as pilot-in-command until formally certified by the Sq/CC. See **paragraph 5.2** for additional requirements for Mobility Pilot Development (MPD) pilot certification as aircraft commander.

3.2.2. Basic Qualified Boom Operators (FB) flying during MCT (who are current and qualified in the aircraft) may fly without an instructor of like specialty on CONUS-only sorties. See **paragraph 3.3.1** for minimum ground training requirements.

3.3. Ground Training Requirements. All crewmembers will accomplish any remaining events from **Table 2.1** that were not previously accomplished while at the FTU. Aircrew members will complete all academic ground training events required for mission certification in the unit's operational mission (not applicable for senior officers or staff officers maintaining BAQ). Training may be accomplished concurrently with other training.

3.3.1. Training sorties and operational missions may be flown before completing all events, provided Aircraft Marshaling Exam (G002), Flight Physical, Physiological Training, Aircrew Flight Equipment Familiarization (LL01), Egress Training (LL03), and Local Area Survival (SS01) are accomplished. Ground training events required for the mission must be completed prior to being flown. Pilots will complete Overwater Navigation Procedures (G160) prior to flying to destinations OCONUS. Boom Operators will complete Boom Operator Cockpit Orientation CBT (G272) prior to their first flight.

3.3.2. Graduates of the formal Pilot Check Out Course need only accomplish ground training events in which they have lost currency.

3.3.3. The ATS contractor post-graduate questionnaire will be completed by the student three months after scheduled Phase IB graduation date.

3.3.4. Certified or qualified MR crewmembers transferring between KC-10 main operating bases (MOB) will require Aircraft Ground Marshaling Training and Examination (G002), ISOPREP Review (G120), Aircrew Flight Equipment Familiarization (LL01), Local Area Survival (SS01), and unit-specific MR training events (and events in which they may have lost currency during the change-of-station). See [paragraph 1.12.1](#) and [3.4.2](#) for additional information.

3.3.5. Ground training events accomplished during MCT establish the crewmember's due dates for subsequent continuation training. Completion of Combat SERE Training, Wartime Level C (SS20) or Evasion Conduct After Capture (SS19) (FS Only), Water Survival Training, Non-Parachuting (SS32), and initial Aircrew Flight Equipment Familiarization (during formal school) establishes the due date (based on date of first completed course) for recurring Combat SERE Training (SS02), Conduct After Capture (SS03), Water Survival Training (SS05), and Aircrew Flight Equipment Training (LL06). Completion of SS20 or SS19 (FS only) also establishes the due date for recurring Law of Armed Conflict (G100).

3.4. Flying Training Requirements:

3.4.1. Upgrade students. Complete mission certification flying training requirements in **Table 3.1**. Items accomplished to the appropriate proficiency level during FTU count toward this mission ready table. Use date of successful evaluation to establish currency requirements for these events. BAQ crewmembers pursuing MR status will be assigned a Flight Training Level and accomplish continuation training requirements IAW [Chapter 4](#). Crewmembers in upgrade training will credit all events accomplished during Phase IA, Phase IB, and MCT IAW [paragraph 4.4.1](#). Crewmembers pursuing MR status who fail to accomplish minimum aircrew requirements (currency and semi-annual) must fly in a supervised status when that event is required for a particular flight until the delinquent event or currency is corrected.

3.4.2. After arrival at the duty station following a PCS from the other KC-10 MOB, crewmembers will receive a local area briefing and supervised local orientation flight. The lack of a local briefing and local flight does not preclude the crewmember from deploying as MR. The crewmember must accomplish all grounding items prior to the local orientation flight. See [paragraph 1.12.1](#) and [3.3.4](#) for additional information.

3.4.3. MPD Pilots selected for PCO upgrade certification training must re-accomplish all applicable events in [Table 3.1](#), except for N013, N014, P260, P270, P280, and P290, with an emphasis on aircraft commander duties and responsibilities prior to certification.

Table 3.1. Mission Certification Flying Training Requirements.

Code	Event	P	FE	BO	Notes
F020	Formation	P			2
M260	Deployment Mission Planning	P	P		
M261	Airlift Deployment Operations	P	P		

M262	Fighter Deployment Operations	P	P		
N013	Rendezvous/AR EMCON 3	B	B	B	2
N014	Rendezvous/AR EMCON 4	B	B	B	2
P260	HAVE QUICK	P			2
P270	Secure Radio Operation	P			2
P280	ACDTQT	OT	OT	OT	
P290	Alert Start	B	B	B	
P300	Cargo Loading			P	
P340	Briefing and Control of Passengers			P	2
P379	Iridium Satellite Phone	P	P	P	2
Q022	Receptacle Equipped Day Fighter Certification			P	2
Q023	Receptacle Equipped Night Fighter Certification			P	2
Q180	Cargo Mission Evaluation			P	
R030	Receiver AAR, Heavyweight	P	P		1,2
R055	Receiver AAR, Anchor ARA	P			1,2
<i>B – Briefing Item, P – Proficient, OT – One Time Accomplishment</i>					
NOTES:					
1. Not applicable to graduates of PIQ and ACIQ (until ready for AC certification).					
2. Accomplish in MCT if not accomplished in Phase IB.					

3.5. Mission Certification Training (MCT). MCT starts on the first duty day following the successful completion of the Phase IB evaluation. Flight training will be conducted by KC-10 instructors. See also **paragraph 5.6** for information on Special Qualifications and Certifications. Crewmembers will be mission ready (MR) after completion of all ground training, mobility training, flying training requirements, and certification (if required).

3.5.1. MPD Pilots (Graduates of KC-10 Pilot Initial Qualification (PIQ)). Refer to **paragraph 5.3.3** and **5.3.4**.

3.5.2. KC-10 Aircraft Commander Initial Qualification (ACIQ) and Pilot Check Out Course (PCO). Refer to **paragraph 5.3.5**.

3.5.2.1. ACIQ and PCO pilots' training should place emphasis on Aircraft Commander duties and the ability to lead a crew throughout the mobility system. When training is completed, the Sq/CC determines the individual's certification as an Aircraft Commander.

3.5.3. Flight Engineer Basic Prequalification (FBP) and Flight Engineer Initial Qualification (FIQ): The object of MCT is to provide graduated exposure to the duties of a KC-10 Flight Engineer prior to MF certification. To streamline Flight Engineer training, Phases IIA and IIB has been combined into one MCT program. This allows for the ability to credit events when training becomes available. See **Table 1.2** for MCT timeline.

3.5.3.1. FBP Students: MCT begins the first duty day following the successful completion of Phase IB evaluation and ends when the requirements in this chapter and **Table 2.1** are complete and documented IAW **Attachment 2**. FBP students require a minimum of two M261s and two M262s. The first M261 and M262 need only to be completed and documented to a satisfactory level before completing the second M261 and M262. The second M261 and M262 must be completed and documented to a proficient level IAW **Attachment 2** prior to MF certification. Consecutive M261s and M262s are authorized in order to take full advantage of every training opportunity. **NOTE:** A Dual Role can only satisfy one M261 and one M262 requirement for MCT training. If a second Dual Role mission is to be used to accomplish the requisite M261 and/or M262, a waiver is required to be submitted to the OG/CC IAW **paragraph 1.5.3** of this instruction.

3.5.3.1.1. FBP students will fly local training sorties under IF supervision and may fly local training sorties unsupervised once the following items listed below have been completed to the required level (B/S/P) and properly documented to the desired grade as indicated. **Exception:** FBP students will not fly on local training sorties where cargo loading is being accomplished without IF supervision.

3.5.3.1.1.1. M260 – Deployment Mission Planning (P)

3.5.3.1.1.2. M261 – Airlift Deployment Operations (S)

3.5.3.1.1.3. M262 – Fighter Deployment Operations (S)

3.5.3.1.1.4. N013 – Rendezvous/AR EMCON 3 (B)

3.5.3.1.1.5. N014 – Rendezvous/AR EMCON 4 (B)

3.5.3.1.1.6. R030 – Receiver AAR, Heavyweight (P)

3.5.3.1.2. After achieving designated grade in the events in **paragraph 3.5.3.1.1** and sub paragraphs, and prior to flying local training sorties unsupervised, squadron training office will document a recommendation in the student's training folder suggesting the student be able to fly unsupervised. This recommendation will then be reviewed and endorsed by the Sq/CC.

3.5.3.1.3. The FBP students must have at least 150 hours of flight time after the Phase IB evaluation to achieve MF certification. This requirement may be waived by the OG/CC on a case-by-case basis. **(T-3)**

3.5.3.1.4. For cargo missions only, FBP students may fill the second engineer augmentation requirement once all items listed above have been completed and provided the other Flight Engineer is an instructor. Crew augmentation criteria are outlined in AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures*.

3.5.3.2. FIQ students: MCT begins the first duty day following the successful completion of Phase IB evaluation and ends when the requirements in this chapter and **Table 2.1** are complete and documented IAW **Attachment 2**. FIQ students require a minimum of only one M261 and M262 documented to a proficient level IAW **Attachment 2** before MF certification.

3.5.3.2.1. FIQ students may fly local training sorties unsupervised. **Exception:** FIQ students will not fly on local training sorties where cargo loading is being accomplished without IF supervision.

3.5.3.2.2. For cargo missions only, FIQ students may fill the second engineer augmentation requirement provided the other Flight Engineer is an instructor. Crew augmentation criteria are outlined in AFI 11-2KC-10, Volume 3, *KC-10 Operations Procedures*.

3.5.4. KC-10 Basic Boom Operator Qualification (BBQ): MCT consists of two training phases; Phase IIA, Academic Ground Cargo Load Training and Phase IIB, Flight Cargo Load Training. See [Table 1.2](#) for MCT training time limitations.

3.5.4.1. Phase IIA Academic/Ground Cargo Load Training. Training consists of a 15 training day academic program in basic cargo loading operations utilizing a combination of classroom instruction, CBTs, and P302 cargo loads. Student duties are limited to attendance/completion of Phase IIA. The primary instructor will complete an end of course assessment detailing progression, recommendations, and documenting Phase IIA training completion on AF Form 4025 or electronic equivalent. The assessment will assist squadron leadership and training flights in determining if the student should progress to Phase IIB or if additional academic/ground training is required prior to Phase IIB start. Phase IIB shall not commence until Phase IIA has been successfully completed.

3.5.4.2. Phase IIB Flight Cargo Load Training. Training starts upon completion of Phase IIA. This phase consists of flight cargo training utilizing P300 and P301 cargo missions. It will include at least one cargo load and one recommend ride cargo load. The recommend ride cannot be conducted on the student's first P300 or P301 mission.

3.5.4.3. Fighter contact certification training will be IAW requirements of Q022/Q023 detailed in [paragraph 5.6.3](#), [7.14.10](#), and [7.14.11](#). Mission ready status shall not be granted until fighter certifications are attained.

3.5.4.4. MCT Completion. MCT is complete upon successful accomplishment of the Q180 Cargo Loading evaluation IAW AFI 11-2KC-10, Volume 2 and requirements of [Table 2.1](#) and [3.1](#). However, boom operators will not perform any cargo operations unsupervised until mission ready certified by the Sq/CC.

3.5.4.4.1. If an MCT student fails Q180 and will exceed the allotted training timeline, then a waiver must be completed through A3T while also adhering to the AFI 11-202, Volume 2 requirements.

3.5.5. Flight Surgeon Mission Qualification Requirements. Flight Surgeon requirements are outlined in AFI 11-202, Volume 1.

Chapter 4

CONTINUATION TRAINING

4.1. Description. This chapter establishes the minimum flying and related ground training requirements to maintain currency and qualification. The unit commander will ensure crewmembers receive sufficient continuation training to maintain individual proficiency.

4.2. Aircrew Status. KC-10 crewmembers are assigned to Mission Ready (MR), Non-Mission Ready (NMR), Basic Mission Capable (BMC), or Basic Aircraft Qualification (BAQ) status.

4.2.1. Mission Ready (MR). For SORTS, operational tasking, and deployments, a MR crewmember is defined as one who is available and certified in the squadron's mission (completed qualification and mission certification training for applicable crew position).

4.2.2. Non-Mission Ready (NMR). A crewmember that is unqualified, non-current or incomplete in required continuation training, or not certified to perform the unit mission. See **paragraph 4.9** for specific guidance on crewmembers that are non-current or incomplete in required continuation training.

4.2.3. Basic Mission Capable (BMC). A non-mission ready (NMR) crewmember assigned to MAJCOM headquarters, NAF, 618 AOC (TACC), USAF Expeditionary Center, Contingency Response Wing (CRW), or Direct Reporting Unit (DRU) who has satisfactorily completed mission certification training and does not maintain MR status, but maintains familiarization in the command or unit's operational mission.

4.2.3.1. The crewmember may maintain qualification in some aspects of the unit mission and is able to attain full qualification in the unit mission within 45 days.

4.2.3.2. BMC crewmembers whose aircrew position is either instructor or examiner, may log instructor or examiner time for the portion of the mission for which they are current and qualified and performing instructor or examiner duties. Otherwise, they will log FP, FF or FB time.

4.2.4. Basic Aircraft Qualification (BAQ). A crewmember that has satisfactorily completed initial qualification training and is qualified to perform aircrew duties in the unit aircraft.

4.2.5. MR, BMC, and BAQ crewmembers must accomplish and/or maintain the requirements in AFI 11-202, Volume 1 (for their respective status) and the appropriate events in the ground and semi-annual flying continuation tables in **Chapter 4**.

4.3. Flying Training Levels.

4.3.1. The Sq/CC assigns crewmember Flying Training Levels (FTL) (see **paragraph 1.4.6.5**). NMR crewmembers assigned to MAJCOM headquarters, NAF, 618 AOC (TACC), USAF Expeditionary Center, CRW, or a DRU are normally categorized as BMC and assigned FTL A or E. FTL A NMR crewmembers mentioned above may fly unsupervised on CONUS training missions provided they are current and qualified.

4.3.1.1. FTL A—Highly Experienced Crewmembers (including BAQ Highly Experienced Crewmembers pursuing MR status). As a guide, crewmembers having 10 or more years of operational flying experience (i.e., MR or NMR MAJCOM headquarters staff and 618

AOC (TACC) personnel; NAF personnel; USAFEC instructors, Wg/CC, OG/CC, and Sq/CC, operations officers, and crewmembers assigned to OG evaluation positions). Sq/CC may assign highly experienced MR line crewmembers to FTL A.

4.3.1.2. FTL B—Experienced MR Crewmember (including BAQ Experienced Crewmembers pursuing MR status). As a guide, crewmembers having between 5-10 years of operational flying experience.

4.3.1.3. FTL C—MR Crewmember. Initially assign inexperienced MR crewmembers and inexperienced individuals pursuing MR status after initial qualification training to FTL C. As a guide, crewmembers having less than 5 years of operational flying experience.

4.3.1.4. FTL E—BAQ or BMC non-instructor staff. This training level may include senior officers, MAJCOM, NAF, 618 AOC (TACC), CRW, and DRU staff who are not maintaining MR or instructor status. FTL E requirements are insufficient for MR status and crewmembers assigned to this FTL will fly with an instructor of like specialty at all times.

4.3.2. Change of FTL. Once the semi-annual period begins, do not move a crewmember to a level requiring fewer events. **Exception:** Units associating FTLs with crew positions may change FTLs after upgrade i.e. instructor upgrade. BAQ crewmembers may be placed into a different FTL any time after attaining MR status. Prorate events upon changing training levels.

4.4. Training Events/Tables. Standardized ARMS training event identifiers and descriptions can be found in **Chapter 7**. Unit defined events will be designated “X” events (i.e. X020) and listed in local supplement. Proration of training information can be found in **Table 4.5** and **paragraph 4.8** of this AFI.

4.4.1. Crediting Event Accomplishment. Crewmembers may credit events accomplished during training, MCT, operational missions, and satisfactory evaluations toward currency requirements and establish a subsequent due date. They must be qualified in the events and either current or under the supervision of an instructor. Use date of successful evaluation as the date of accomplishment for all flying training currency events that were trained during the formal or in-unit course. Crewmembers may credit G240, that quarter’s G261-G264 (as appropriate), and G292 refresher training upon satisfactory completion of evaluation of any formal or in-unit course for the current quarter (use the simulator evaluation date as the date of accomplishment). ATS courses are listed in **Table 6.2** (see **paragraph 4.8** for proration). For upgrade students (not initial qualification or requalification students), continuation training events accomplished during upgrade training prior to the evaluation are credited towards the requirements for the current crew position. Do not log training events for the upgrading crew position prior to the evaluation.

4.4.2. For an unsatisfactory flight evaluation, do not log continuation training event items graded unsatisfactory (according to AFI 11-2KC-10, Volume 2) until re-qualified.

4.4.3. Make-up training (ground or flying) is creditable towards the new training period. For G220, flight engineers and boom operators must accomplish systems refresher material for the missed quarter.

4.4.4. Instructors and flight examiners may credit up to but not more than 50 percent of their semiannual training requirements while instructing or evaluating (for example, if a FTL A instructor Flight Engineer instructed 2 M010s when the requirement is 3, the instructor could only credit 1 for the half). **Exception:** Instructor and flight examiner pilots may not credit any takeoffs, landings, or receiver air refueling (rendezvous may be credited) flown by another pilot. Instructor and examiner boom operators must accomplish all their own contacts.

4.4.5. Records and Documentation. Units will use AF Form 1522, *ARMS Additional Training Accomplishment Report* prescribed by AFI 11-202, Volume 1, to record training accomplishments. Course instructors will deliver these forms to the appropriate scheduling and training documentation sections within one duty day after the class is taught. Small arms training (G280) will be recorded on AF Form 522, *USAF Ground Weapons Training Data* IAW AFI 36-2654, *Combat Arms Program*.

4.4.5.1. IAW AFI 11-202, Volume 1, units may use locally developed mission accomplishment reports (MAR), or electronic equivalent, to document continuation training. Minimum requirements for the MAR is defined within this chapter and tables.

4.5. Continuation Training Requirements.

4.5.1. Ground Training Events. Completion and tracking of continuation training is the responsibility of the individual crewmember. Crewmembers shall actively work with unit schedulers and training offices to ensure their continuation training is accomplished as described in this chapter.

4.5.2. Ground Training Events. Crewmembers will comply with requirements of [Table 4.1](#) and [4.2](#).

4.5.2.1. Failure to accomplish events in [Table 4.1](#) leads to non-mission ready status. See [paragraph 4.9](#) for regaining mission ready status.

4.5.2.2. Failure to complete mobility training requirements in [Table 4.2](#) does not lead to non-mission ready status but may restrict member from certain missions requiring the associated training. Staff crewmembers (i.e. MAJCOM, NAF, 618 AOC (TACC), USAF EC, etc.) may accomplish ground training events at locations other than their unit of attachment. The crewmember is responsible for reporting accomplished training events to their unit of attachment (ARMS office).

4.5.2.3. Ancillary Training. See [paragraph 4.7](#).

4.5.2.4. Crewmembers performing extended alert duty (more than 72 hours) may accomplish ground training that does not degrade required response time or mission accomplishment. Specify requirements and/or restrictions in MAJCOM supplements.

4.5.2.5. All training events will be recorded in ARMS.

4.5.2.5.1. Training events conducted during block or phase training may be consolidated under one ARMS entry.

4.5.2.5.2. Combined training events may have only one ARMS entry.

4.5.2.5.3. Input all one-time events and events required for Permanent Change-of-Station (PCS) in the ARMS database. Do not maintain these events on the crewmember's currency reports.

Table 4.1. Aircrew Ground Continuation Training Requirements (Failure to Accomplish = NMR).

Code	Event	Position	Freq	Reference Directive	Notes
	Flight Physical	All	455D	AFI 48-123AFI 44-170	1,2,10
	Physiological Training	All	60M	AFI 11-403	1,2,5,10
G060	Aircrew Tactics Continuation Training	All	SA		3,6,9,10
G070	Aircrew Intelligence Training	All	A	AMCI 10-450(S)	3,6,10
G080	Communication Procedures	All	365D	AFI 33-201, Volume 2	3,6,10,11
G090	Anti-Hijacking	All	12M	AFI 13-207	3,10
G130	Instrument Refresher Course	P	12M	AFMAN 11-210	2,8,10
G150	Approach Plate Familiarization Training	FE	B		
		BO	A		
G182	Hazardous Cargo	P,BO	24M	AFMAN 24-204(I) AFJI 11-204	6
G190	Aircraft Servicing	All	T		6
G220	Aircraft Systems Refresher CBTs	FE,BO	Q		4,6,7
G273	Boom Operator Cockpit Orientation CBT Refresher	BO	B		6
G400	AIR Card User Training	AC,FE	T	AFI 11-253	6,10
G401	Instructor/Evaluator Calibration	All	A		6
LL03	Emergency Egress Training, Non-Ejection	All	T	AFPD 11-3 AFI 11-301, Volume 1	1,2
LL06	Aircrew Flight Equipment Training	All	T	AFI 11-301, Volume 1	
SS02	Combat SERE Training (CST)	All	36M	AFI 16-1301	6,10
SS05	Water Survival Training (WST)	All	36M	AFI 16-1301	6,10
A-Annual, B-Biennial, D-Days, M-Months, Q-Quarterly, SA-Semi-Annual, T-Triennial. See Terms for frequency definitions					
NOTES:					
1. Mandatory grounding item; individual will not fly until required training is accomplished. Flight physicals become due 366 days after the previous physical, and expire after the 455th day					

or as indicated on the AF IMT 1042, whichever occurs first. The required frequency may vary to address waivers and/or individual physical limitations (as determined by the Flight Surgeon), but in no case will exceed 455 days.

2. The OG/CC or equivalent is not the waiver authority for this event.
3. CONUS sorties not requiring this event may be accomplished while non-current for this event (see **paragraph 4.9.3.1**).
4. Should be accomplished during G292 for Boom Operators.
5. Physiological Training expires 5 years after the last day of the month in which previously accomplished.
6. Not required for BAQ, BMC crewmembers (i.e. crewmembers assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), and USAF Expeditionary Center), or Senior Officers unless specified in this AFI or AOR SPINS.
7. Frequency is semi-annual for MAJCOM, NAF, and AFMC Boom Operators.
8. Pilots on active flying status must complete the IRC every fourth quarter after completion IAW AFMAN 11-210, *Instrument Refresher Program (IRP)* and AFI 11-202, Volume 1.
9. OG/CCs may specify an alternate frequency for Tactics training, but not less than “Annual.” (T-3)
10. AFI 11-2KC-10, Volume 1 is not the governing directive for completion of this event. IAW AFI 11-202, Volume 1, **paragraph 6**, refer to reference publications which provide guidance for accomplishment of ancillary training requirements.
11. Only Iridium Phone portion of G080 is required for Flight Engineers and Boom Operators.

Table 4.2. Aircrew Specific Mobility Training Requirements (Failure to Accomplish = Restrictions May Apply events may restrict crewmembers’ ability to participate in missions requiring the event).

Code	Event	Freq	Reference Directive	Notes
C040	Mobility Folder Review	A	<i>AFI 10-403</i>	1,2,5,6
E030	Passport (Primary)	AR	<i>Foreign Clearance Manual</i>	1
E035	Secondary Passport	AR	<i>Foreign Clearance Manual</i>	1
G120	ISOPREP Review	180 D	<i>JP 3-50</i>	1,3
G280	Small Arms Training	24M	<i>AFI 36-2654</i> <i>AFI 31-117</i>	1,4
LL04	Aircrew Chemical Defense Training (ACDT)	B	<i>AFI 11-301, Volume 1</i>	5
SS03	Conduct After Capture (CAC)	36M	<i>AFI 16-1301</i>	1,5
SS07	Contingency SERE Indoctrination	AR	<i>CCMD Directive</i>	1

VT03	VTRAT Refresher Training	A	AFI 11-2KC-10, Volume 1	5,7
<i>A-Annual, AR-As Required, B-Biennial, M-Months. See Terms for frequency definitions.</i>				
<p>NOTES:</p> <ol style="list-style-type: none"> 1. AFI 11-2KC-10, Volume 1 is not the governing directive for completion of this event. IAW AFI 11-202, Volume 1, paragraph 6, refer to reference publications which provide guidance for accomplishment of ancillary training requirements. 2. See Unit Deployment Manager (UDM) for Mobility Folder Review frequency and additional USAF Ancillary and Mobility requirements. 3. Review of ISOPREP card within 90 days prior to AEF/Contingency deployment is mandatory. 4. IAW AFI 36-2654, MAJCOMs may link Group ‘A’ aircrew firearms training to an aircrew ground training cycle program. RegAF aircrew will follow requirement of Table 4.2 of this AFI. AFRC requirements are defined in AFI 36-2654. 5. The OG/CC or equivalent is the waiver authority for this event. See paragraph 4.9.3. (T-3) 6. Not required for crewmembers assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), Senior Officers and USAF Expeditionary Center. 7. Required to fly OCONUS. 				

4.5.3. Flying Continuation Training Requirements. **Table 4.3** and **4.4** lists standardized flying continuation training requirements. See **Chapter 7** for event descriptions.

4.5.3.1. ATD Credit for Training Requirements. Flight events creditable in the ATDs are listed in **Table 4.3** and **4.4**. For ARMS tracking, simulator events will be logged with an “S” prefixed task ID in ARMS. Events accomplished during Distributed Mission Operations (DMO) will be logged with a “D” prefixed task ID in ARMS. All simulator accomplishments must be documented and tracked in ARMS. Ensure the maximum number of simulator creditable events is not exceeded.

4.5.3.2. Continuation Flying Training. Each MAJCOM provides flying hours to each wing as training, test, and ferry hours or operations and maintenance (O&M) hours. The hours, based on FTL C, are designed to provide all crew positions with sufficient hours to accomplish all continuation flying training requirements.

4.5.3.3. Mission profile and refresher simulators will be flown in the same manner as the aircraft, to include the wear and use of professional gear (headsets, etc.).

4.5.3.3.1. Simulator sorties will be scheduled as ground events in GDSS (if able) and sortie cancellation authority will reside with the OG/CC (or designated representative).

4.5.3.3.2. Pre-requisites for simulator training must be completed prior to the simulator start time or the training may be cancelled. AFRC members should accomplish CBTs prior to simulator training, but the sortie will not be cancelled if this is not accomplished.

Table 4.3. KC-10 Pilot Semi-Annual Continuation Training Flying Requirements.

Code	Event	Aircraft Commander (FPK/L & MP+)					Pilot (FPN/C/Q)					Creditable in ATD			Notes
		A	B	C	E	C U R	A	B	C	E	C U R	%	Maintain	Regain	
F020	Formation	2	2	3		Q	2	2	3		Q	50/66 %	Y	N	10,14
F030	Large Formation					A					A	100%	Y	N	10,15
F060	AR Formation	1	1	2		Q - FTL C	1	1	2		Q - FTL C	100%	Y	Y	10
G240	CRM MOST Sim					A					A	100%	Y	Y	
G261- G264	Refresher Simulator					Q					Q	100%	Y	Y	5,12
M010	Proficiency Sortie	2	2	2			2	2	2			100%	Y	Y	9,10
M020	Unit-Specific Sortie	4	4	4			4	4	4						
M030	Oceanic Sortie	1	1	2		Q - FTL C	1	1	2		Q - FTL C				16
M050	Basic Tactical Sortie					A					A	100%	Y	Y	4,10,13
N010	Tanker RV	4	5	6		Q	4	5	6		Q	100%	Y	Y	
N020	Tanker RV Golf	1	1	2		Q - FTL C	1	1	2		Q - FTL C	100%	Y	Y	
N030	Tanker RV Delta	1	1	2		Q - FTL C	1	1	2		Q - FTL C	100%	Y	Y	
P004	MPD Taxi						2	2	2						
P005	Taxi Exercise	1	2	2			2	2	2						11
P010	Takeoff, Initial	2	4	6	2	Q	2	4	6	2	Q	100%	Y	Y	10
P020	Takeoff	8	10	12	6	M	8	10	12	6	M	100%	Y	Y	10
P028	Right Seat Takeoff											100%	Y	Y	10
P029	Left Seat Takeoff						2	2	2		Q	100%	Y	Y	10
P061	VFR Overhead					A					A	100%	Y	Y	10
P062	Tactical Departure					A					A	100%	Y	Y	4,6,10,13
P063	Tactical Arrival					A					A	100%	Y	Y	4,7,10,13
P064	Slide Exercise					A					A	100%	Y	Y	4,10,13
P065	Single-Ship Scram					A					A	100%	Y	Y	4,10,13
P066	Steep Turn					A					A	100%	Y	Y	4,10
P067	Contingency Rejoin					A					A	100%	Y	Y	4,10,13
P068	Combat Descent					A					A	100%	Y	Y	4,6,10,13
P069	Defending Climb					A					A	100%	Y	Y	4,6,10,13

Code	Event	Aircraft Commander (FPK/L & MP+)					Pilot (FPN/C/Q)					Creditable in ATD			Notes
		A	B	C	E	C U R	A	B	C	E	C U R	%	Maintain	Regain	
P070	Instrument Approach	6	8	12	6	M	6	8	12	6	M	100%	Y	Y	10
P080	Inst Appr-Auto	2	2	2			2	2	2			100%	Y	Y	10
P090	Inst Appr-Manual	2	2	2			2	2	2			100%	Y	Y	10
P100	Precision Approach	3	3	3	2		3	4	6	2		100%	Y	Y	10
P110	Non-Precision Approach	3	3	3	1		3	3	3	1		100%	Y	Y	10
P130	Circling Approach	1	2	2			1	2	2			100%	Y	Y	10
P140	Visual Traffic Pattern	2	2	2			2	2	2			100%	Y	Y	10
P150	Missed Approach - Auto	1	1	2			1	1	2			100%	Y	Y	10
P160	Missed Approach	1	1	2			1	1	2			100%	Y	Y	10
P190	Landing	8	10	12	6	M	8	10	12	6	M	100%	Y	Y	10
P192	Landing, Night	2	2	2	2	Q	2	2	2	2	Q	100%	Y	Y	10
P198	Landing, Right Seat											100%	Y	Y	10
P199	Landing, Left Seat						2	3	3		Q	100%	Y	Y	10
P200	Touch and Go Landing					M						100%	Y	Y	3,10
P260	HAVE QUICK	A	1	1			A	1	1						
P270	Secure Voice	A	1	1			A	1	1						
P280	ACDTQT	T	B	A			T	B	A			100%	Y	Y	
R010	Receiver AAR	4	5	6		45D						100%	Y	N	2,8,10,18
R013	Receiver AAR, Aircraft	2	2	3		Q									2
R020	Receiver AAR (Night)	1	2	3								100%	Y	Y	2,10
R030	Receiver AAR Heavy	A	A	1								100%	Y	N	2,10
R040	Receiver AAR, Breakaway	1	1	1			1	1	1			100%	Y	Y	2,10
R045	Receiver AAR, Hvy Wt Breakaway	1	1	1			1	1	1			100%	Y	Y	2,6,10
R050	Rcvr AAR, Tanker AP off	1	2	2											2
R055	Revrr AAR, Anchor ARA	1	1	2								50%	Y	N	1,2,10
R060	Tanker AAR	4	5	6		Q	4	5	6		Q	100%	Y	Y	
R070	Tanker AAR, Breakaway	2	2	2			2	2	2			100%	Y	Y	10
R080	Tanker AAR, AP Off	1	1	1			1	1	1						
R090	Tanker AAR, Slow Speed	1	1	1			1	1	1			100%	Y	Y	10
S185	CNS/ATM					90D					90D	100%	Y	Y	17

	Proficiency Sortie																
<p><i>A-Annual, B-Biennial, D-Days, M-Monthly, N-No, Q-Quarterly, T-Triennial, Y-Yes.</i> <i>See Terms for frequency definitions</i></p>																	
<p>NOTES: The OG/CC or equivalent is the waiver authority for events in Table 4.3. See paragraphs 1.5.2 and 4.9.3. Currencies do not apply to FTL E crewmembers. FTL E training requirements are insufficient for MR status and crewmembers assigned to this FTL will fly with an instructor of like specialty at all times. Events creditable in the ATD and not requiring full operational motion and visual systems may be logged in the FTD. (T-3)</p> <ol style="list-style-type: none"> 1. FTL A and B individuals can credit 100% in the WST. 2. Crewmembers who qualified through a senior staff course are not permitted to accomplish receiver AR with passengers onboard the aircraft. 3. Applies to touch-and-go certified aircraft commanders only. Does not apply to instructor or evaluator pilots. Loss of currency does not result in loss of mission ready status. 4. Not required for BMC crewmembers, Senior Officers, or pilots assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), and USAF Expeditionary Center. 5. Semi-Annual requirement for pilots assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), and USAF Expeditionary Center. 6. WST only. 7. Low Altitude/High Speed Arrival option is WST only. 8. Sixty (60) day currency for FTL A/B Aircraft Commanders (MP) and above. 9. If accomplishing an M010 in the WST, pilots should focus on instrument proficiency with all engines/systems operating. This event is not intended to be logged while handling multiple aircraft malfunctions. 10. Requires full operational motion and visual systems in order to credit the event. 11. MPD Pilots will dual log a P004 when performing P005. 12. MPD Phase II Pilots should accomplish at least half of their G261-G264 WST periods in the left seat to provide seasoning for aircraft commander certification. 13. As a minimum, MPD Pilots require proficiency in PM duties for tactical maneuvers. Aircraft Commanders require proficiency in PF duties for tactical maneuvers. 14. FTL A & B individuals can log 50% (1 event per semi-annual period) in the WST whereas FTL C individuals can log 66% (2 events per semi-annual period) in the WST. 15. Not an annual continuation training flying requirement unless certified in large formation. FTL C individuals cannot log F030 in the WST. 16. Annual requirement for pilots assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), and USAF Expeditionary Center. 17. Instructors/evaluators may receive credit when observing, instructing, or performing evaluator duties. 18. FTL A & B can log two in the WST while FTL C can log three. 																	

Table 4.4. Flight Engineer / Boom Operator Semi Annual Continuation Training Flying Requirements.

Code	Event	Flight Engineer				Boom Operator				Creditable in ATD			
		A	B	C	C U R	A	B	C	C U R	%	Maintain	Regain	Notes
G240	CRM MOST Sim				A				A	100% WST	Y	Y	
G261-G264	Refresher Sim				Q					100% WST	Y	Y	3
G292	Refresher BOT								Q	100% BOT	Y	Y	3
M010	Proficiency Sortie	3	4	6	60D	1	1	1	180D				
M050	Basic Tactical Sortie				A				A	100% WST	Y	Y	2,4
P280	ACDTQT	T	B	A		T	B	A		100% WST/FTD/BOT	Y	Y	
P300	Cargo Loading								120D				3,5,6,7
P332	Boom Operator APU Start Proc					1	1	1		100% WST/FTD	Y	Y	
R010	Receiver AAR	2	2	4						100% WST/FTD	Y	Y	
R030	Rcvr AAR, Heavyweight	1	1	2						100% WST/FTD	Y	Y	
R060	Tanker AAR	2	2	4						100% WST/FTD	Y	Y	
R070	Tanker AAR, Breakaway					1	1	2		100% BOT	Y	Y	
R120	Contacts					20	34	50	60D	50% BOT	N	N	1
R130	Night Contacts					4	5	6					
R140	Tanker Manual Contacts					2	3	4		2 per BOT	Y	Y	
R150	Fighter Contacts					2	2	2	180D				
R170	Tanker Heavywt Offload	1	1	2						100% WST/FTD	Y	Y	
S185	CNS/ATM Proficiency Sortie				90D					100% WST/FTD	Y	Y	4

A-Annual, B-Biennial, D-Days, N-No, Q-Quarterly, T-Triennial, Y-Yes.

See Terms for frequency definitions

Notes: OG/CC or equivalent is the waiver authority for events in **Table 4.4**. See **paragraphs 1.5.2** and **4.9.3. (T-3)**

1. Quarterly currency requirement for MAJCOM Headquarters, NAF, 618 AOC (TACC), USAF Expeditionary Center, AFMC Test Boom Operators, and Det 1 AMCAOS.
2. Not required for crewmembers assigned to MAJCOM Headquarters, NAF, 618 AOC (TACC), and USAF Expeditionary Center or BMC/BAQ aircrew unless specified in MAJCOM supplement
3. Frequency is semi-annual for MAJCOM Headquarters, NAF, 618 AOC (TACC), USAF

Expeditionary Center, AFMC Test Boom Operators, and Det 1 AMCAOS.

4. Instructors/evaluators may receive credit when observing, instructing, or performing evaluator duties.
5. All cargo loads may be logged by two cargo-qualified boom operators (a third boom operator may log a cargo load if fulfilling the IB or EB role). Logging of P301 followed by a P302 or vice versa is authorized as long as different AMC/A3TK approved cargo loads are utilized.
6. Boom Operators may not log consecutive P300 and P301 cargo loads for currency while performing evaluator duties.
7. P300 currency for all FTL A/B personnel is 180 days.

4.6. Flight Surgeon Continuation Flying Requirements. Flight Surgeons requirements are outlined in and will be accomplished IAW AFI-11-202, Volume 1.

4.6.1. For contingency/AOR missions, Flight Surgeons must also be current for all SERE training as required by AFI 16-1301 as well as G120.

4.7. Ancillary Training. Ancillary Training is guidance or instruction that contributes to mission accomplishment, but is separate from an Air Force Specialty or occupational series. AFI 11-2KC-10, Volume 1 is not the governing directive for completion of ancillary training events. In accordance with AFI 11-202, Volume 1, the source AFI provides training frequency for these events unless an approved waiver has been authorized. See Unit Deployment Manager representative to ensure compliance with additional non-aircrew specific training requirements.

4.8. Proration of Training. AFI 11-202, Volume 1 describes proration of training requirements for crewmembers not available for flying duties. In addition, prorate training for non-availability due to operational deployments when the Area of Responsibility Special Instructions or local deployed unit policy precludes training for certain mission events. This authority must be used judiciously, especially when prorating the same crewmember for consecutive semi-annual training periods.

4.8.1. Use this formula to determine training requirements: number of months available times the event volume divided by the number of months in the training period. Round down to the nearest whole number (e.g. 5.6 rounds to 5), but not less than 1 unless the individual was available for less than 15 days during the semi-annual period. Document proration to zero on end-of-half training letter.

4.8.1.1. Use **Table 4.5** to determine the number of months available. Prorate only if absence is at least 15 cumulative days. For contingency alerts and contingency flying TDYs non-consecutive periods of non-availability can be combined for proration purposes.

4.8.1.2. When an individual permanently changes station (PCS) during the training cycle to a unit flying the same model aircraft and enters the same FTL or lower, credit training accomplished at the previous base. Prorate training requirements based on the time available (e.g., time at former base, plus time at new base, minus number of days not available) during the training period. Time available starts 7-days after sign-in for CONUS and 14-days after sign-in for OCONUS or on the date of actual accomplishment

of the first training event, whichever occurs first. Subtract previous accomplishments from the prorated total to determine remaining requirements.

4.8.2. Units may also prorate requirements for individuals changing training levels. If requirements are prorated, do not credit events accomplished while in the former FTL.

4.8.3. For upgrade students, continuation training requirements will be prorated from their training start time through the day prior to the successful completion of their upgrade evaluation (see [Table 4.5](#)).

4.8.4. For initial qualification and requalification students, training accomplished prior to the successful aircraft flight portion of their evaluation will not be credible towards their semi-annual continuation training requirements. They are considered unavailable for proration purposes. Initial and requalification student's time available for proration purposes begins the duty day prior to the successful completion of their initial or requalification evaluation and will be prorated accordingly.

Table 4.5. Individual Availability.

Days Available	Months Available
0 - 15	0
16 - 45	1
46 - 75	2
76 - 105	3
106 - 135	4
136 - 165	5
≥ 166	6

4.9. Failure to Complete Training Requirements. Declare individuals NMR if they fail to maintain flying currencies, fail to complete semi-annual flying continuation training requirements, or fail to complete ground continuation training requirements. The following guidance applies:

4.9.1. Failure to Maintain Flying Currency.

4.9.1.1. Flight Training Currency. Flight currency is associated with those events denoted in the flying continuation training tables by a specific period of time (monthly, quarterly, semi-annual, or annually) within which an event must be accomplished. A currency event must be accomplished at least once within that specified time in order to maintain the currency.

4.9.1.2. Loss of Currency. Place individuals non-current in one or more currency events in supervised training status for that event and declare them NMR in those unit missions requiring that event. Crewmembers are "non-current" the following calendar day after event currency expires (i.e. a crewmember, who accomplished a monthly currency event on 5 September, becomes non-current on 1 November).

4.9.1.2.1. The crewmember cannot deploy and may not fly unsupervised OCONUS until currency is regained. Loss of currency prohibits an individual from

accomplishing unsupervised in-flight duties in the non-current event(s). **Example:** If the individual is non-current for tanker air refueling, the individual may fly unsupervised on CONUS sorties which are not scheduled for and do not accomplish tanker air refueling. A non-current instructor or evaluator may not instruct or evaluate the non-current event.

4.9.1.2.2. A Pilot non-current in Takeoff (P010 or P020), Landings (P190), Approaches (P070), or Refresher Simulator (G261-G264) will not fly unsupervised on any sortie. A Pilot non-current in Formation (F020) may regain currency under the supervision of an IP in another aircraft of the formation if instructor manning prevents direct IP supervision. The optimum position for the IP is the last aircraft so they may monitor all aircraft of the formation.

4.9.1.2.3. Flight Surgeon loss of flying currency. Flight surgeons that exceed 60 days between sorties require a review of aircraft exits and oxygen systems conducted by a member of the flight crew designated by the Aircraft Commander (AC) prior to the flight to regain flying currency.

4.9.1.2.3.1. The egress review will be signed off by the AC on a copy of the AMC/SGP memo or other approved form (e.g., AF 1522, locally generated form/memo, etc.). **Note:** documentation on AFTO 781 is not acceptable. The Flight Surgeon must submit this documentation to the local Squadron/Host Aviation Resource Manager (SARM/HARM) office after the flight or upon return to home station if the flight is in conjunction with a TDY. The HARM or SARM will place the documentation in the Flight Surgeon's training folder.

4.9.1.2.3.2. Failure to complete and document required training before the flight will result in the loss of ability to log primary Flight Surgeon time.

4.9.1.2.3.3. Notify the MAJCOM/SG when Flight Surgeons fail to meet semi-annual or annual sortie requirements. MAJCOMs establish procedures to assess continued active flying authorization. Place a copy of the MAJCOM/SG notification in the member's flight training folder.

4.9.1.3. Regaining Currency.

4.9.1.3.1. Loss of Currency up to 6-Months. Crewmembers maintain their current training level and no training folder is required. Crewmember must demonstrate proficiency in the aircraft or WST (as appropriate) in all delinquent items while under supervision of an Air Force instructor (or ATS contract instructor when [Table 4.3](#) or [4.4](#) permits regaining currency in the ATD).

4.9.1.3.2. Loss of Currency exceeding 6-Months. Crewmember is declared Unqualified for a loss of currency exceeding 6 months (i.e. event was due 31 Dec, crew member is unqualified as of 1 Jul the following year). For Pilots: P020, P070, P190, and R010 (only applies to those individuals who have a current Form 8 with a receiver AR qualification), Flight Engineers: M010, and Boom Operators: R120 and P300. The crewmember will complete Sq/CC directed requalification training (and evaluation, if required) according to AFI 11-2KC-10, Volume 2. For all other currency events, regain currency by demonstrating proficiency in the aircraft or WST

to the satisfaction of an Air Force instructor (or ATS contract instructor when [Table 4.3](#) or [4.4](#) permits regaining currency in the ATD) in all delinquent items.

4.9.1.3.2.1. Flight Surgeons that exceed 6-months between sorties require completion of LL03, Emergency Egress Training, Non-Ejection Seat, with a certified aircrew instructor prior to the next flight.

4.9.2. Failure to Complete Semi-annual Flying Training Events.

4.9.2.1. The Sq/CC will review ARMS products at the end of each semi-annual training period. For individuals who fail to accomplish training requirements, the Sq/CC will place individuals in supervised training status for the event(s) and declare them NMR in those unit missions requiring the event(s), or request an OG/CC waiver for the requirement ([paragraph 1.5.8](#)). (T-3)

4.9.2.1.1. If OG/CC waiver is not accomplished, place individuals who have failed to complete semi-annual flying training events in supervised status for the event(s) (crewmember flies with an instructor of like specialty) until Sq/CC directed re-training is accomplished. The crewmember cannot deploy or fly unsupervised (on a mission requiring the event the individual is NMR for) until Sq/CC directed retraining is accomplished. Failure to complete semi-annual flying training events prohibits an individual from accomplishing unsupervised in-flight duties in those events.

4.9.2.1.1.1. Individuals who, by the nature of their crew position are NMR, or already require instructor supervision (i.e. some individuals in MCT, FTL E crewmembers) do not need to be separately placed in supervised status over and above what their crew position or training program already confers on them. Crew members in a training program who are already qualified, who have reached a point in their training program before the end of the semi-annual period that permits them to fly unsupervised (i.e. FF or FB), who fall within the currency window to revert to an earlier crew position (i.e. FPK, etc.), or who are undergoing training as a result of a failed evaluation must be tracked as NMR for unit readiness purposes.

4.9.2.1.2. Notify the MAJCOM/SG when Flight Surgeons fail to meet semi-annual or annual sortie requirements. MAJCOMs establish procedures to assess continued active flying authorization. Place a copy of the MAJCOM/SG notification in the member's flight training folder.

4.9.3. Failure to Complete Ground Training Events.

4.9.3.1. Individuals who fail to complete ground training requirements are declared NMR. The crewmember cannot deploy or fly unsupervised until currency is regained **Exception:** Noncurrent crewmembers may fly unsupervised on local, routine, and CONUS missions according to [Table 4.1](#) on sorties not requiring the ground training event.

4.9.3.1.1. An individual NMR for failure to complete Hazardous Cargo Training (G182) may fly unsupervised on local training missions only with Sq/CC approval until training is completed.

4.9.3.2. Waivers for Ground Training Events. The decision to grant a waiver will be based on the individual crewmember's experience and proficiency level (i.e. waivers will not be based on a crewmember's availability). OG/CC will determine the allowable time period of the waiver. The make-up training should be accomplished at the earliest opportunity. This waiver is for unforeseen circumstances only and only for events that will not degrade mission accomplishment. **(T-3)**

4.9.4. Make-up training (ground or flying) is creditable towards the new training period.

4.10. Requirements Before PCS or TDY By Members On Active Flying Status. See AFI 11-202, Volume 1.

4.11. Requirements Before Removal From Active Flying. See AFI 11-202, Volume 1.

4.12. Requirements While In Inactive Flying Status. See AFI 11-202, Volume 1.

4.13. Retraining. AFI 11-202, Volume 1 specifies retraining restrictions before separation, retirement, or mandatory inactive flying status.

4.14. Aircrew Flying in Non-US Air Force Aircraft and with Non-US Air Force Units. See AFI 11-202, Volume 1.

4.15. Training Period. Continuation training program is based on static 6-month period, for example: 1 January - 30 June or 1 July - 31 December.

Chapter 5

UPGRADE TRAINING

5.1. Description. This chapter identifies general prerequisites and training requirements for upgrade. Specific course requirements are described in the KC-10 formal course syllabi which are located on the AMC/A3TK SharePoint: <https://eim.amc.af.mil/org/a3t/default.aspx>. AETC also maintains a list of formal school courses at the Education and Training Course Announcement (ETCA) website. The site address is: <https://www.my.af.mil/etcacourses/default1.asp>.

5.1.1. Wg/CC (or OG/CC if appropriately delegated) is designated waiver authority for minimum prerequisites for entry into upgrade programs. (T-3)

Table 5.1. Pilot Upgrade Prerequisites.

From	To	Prerequisite for Course Entry	Prerequisite Before R&C Board Certification	Notes
PIQ Graduate	MP (via PCO or In-Unit upgrade)	1000 hours TFT and MPD Phase I & II	Pilot Check Out Course (PCO) or In-Unit upgrade and AC Qualification Evaluation; Mission Certification Training; MPD Phase I-III	1,4
ACIQ Graduate	MP (via ACIQ)	Previous AC in USAF MDS and/or 1000 hours TFT; 200 PAA flying hours	Mission Certification Training; Phase II guide, if required	1,2,3,4
<p>NOTES:</p> <ol style="list-style-type: none"> 1. Total Flying Time (TFT) represents all flying time logged aboard a fixed wing aircraft as a military pilot including SUPT “student” and “other” time (but does not include time in another aircrew specialty or RPA time). WST time is creditable to meet TFT requirement. 2. Minimum of 200 KC-10 hours PAA required (does not include “other” or Phase IB) before R&C to perform AC duties. 3. For MAF crossflow with similar skill set (i.e. KC-135, C-17, etc.), MPD Phase II guide is not required. Pilots with dissimilar background (i.e. OSA/FAIP, F-16, etc.), accomplish MPD Phase II guide in-unit. 4. Units should make every effort to schedule students for CNS/ATM differences course prior to start of upgrade to facilitate training on both aircraft in FTU. 				

5.2. Mobility Pilot Development (MPD). Mobility Pilot Development is the development program leading to Aircraft Commander certification. The MPD program flows from Pilot Initial Qualification (PIQ) or Aircraft Commander Initial Qualification (ACIQ) formal training courses through continuation training to upgrade selection and culminates in certification as an Aircraft Commander. MPD continuation training is divided into three phases: MPD Phase I (V280), MPD Phase II (V281), and MPD Phase III. All MPD pilots will be dual-seat qualified

and maintain qualification requirements according to AFI 11-2KC-10, Volume 2. MPD pilots are not Aircraft Commanders. See minimum flying hour requirements in **Table 5.1**.

5.2.1. The success of this program depends on MPD pilots being mentored and provided with development opportunities. The upgrade training timeline to Aircraft Commander is based on performance and, at the discretion of the Sq/CC, should be tailored to match an individual's capabilities and experience level.

5.3. MPD Continuation Training through Aircraft Commander Upgrade.

5.3.1. **Documentation.** Completion of MPD Phase I and II is documented in ARMS via an AF 1522 as V280 and V281 respectively; GRACC is documented in ARMS via an AF 1522 as V282. Document the completion of the entire course via AF Form 4324 and Sq/CC certification accomplished in conjunction with Aircraft Commander certification.

5.3.2. **Training Guides.** MPD Phase I & II guides are available for download on the AMC/A3T SharePoint. Guides should be carried on all sorties to maximize training opportunities.

5.3.3. **MPD Phase I (V280).** After completion of the PIQ course, pilots enter MPD Phase I of continuation training. This first phase consists of completing the MPD Phase I guide, which focuses on core aircraft abilities including communication, checklist discipline, systems knowledge, and basic mission planning. A Phase I MPD pilot should not have additional squadron duties nor be expected to act as an Aircraft Commander, yet they should observe and learn from their aircrew leadership.

5.3.3.1. During this stage of pilot development, a Phase I MPD pilot is restricted to the right seat and may only occupy the aircraft left seat with an IP. Phase I MPD pilots will train in the right seat during refresher WSTs and may occupy the left or right seats for proficiency WSTs (and available proficiency time at the end of a refresher WST). Phase I MPD pilots will complete the MPD Phase I guide NLT 180 days (365 days for ARC) after becoming mission ready.

5.3.3.2. In order to advance beyond MPD Phase I, the pilot must be at least 6 months from the training start date (as defined in **paragraph 1.7.1**), have a minimum of 200 PAA (aircraft) hours, and have completed the MPD Phase I guide. Once these requirements are met, the Phase I MPD pilot may be approved for MPD Phase II via the STRP and in no case, no later than selection for Aircraft Commander upgrade. For FAIP/OSA or non-mobility weapon system pilots transitioning to MAF aircraft, completion of V280 is not required; however, V281 and V282 are required.

5.3.3.3. Receiver AR training for MPD pilots may be accomplished anytime with an IP (as long as passengers are not on-board) IAW AFI 11-2KC-10, Volume 3, **Chapter 9** training restrictions. MPD pilots may be entered into a certification program IAW AFI 11-2KC-10, Volume 1, **paragraph 5.6.7**. MPD pilots should be certified in Q583, MPD Receiver Air Refueling, prior to entering PCO. This refueling may be accomplished in either seat.

5.3.4. **MPD Phase II (V281).** This phase consists of completing the MPD Phase II guide, which focuses on the core tasks of flying skills, mission situational awareness, and crew management required for Aircraft Commander certification.

5.3.4.1. Training in this stage will ensure a balanced exposure to both left and right seats in the aircraft with an AC or above. Good judgment and Operational Risk Management (ORM) will dictate with whom they fly and what seat they occupy. As Phase II MPD pilots advance in knowledge, they are encouraged to practice actual mission management skills and decision making under the guidance of their AC or IP.

5.3.4.2. **MPD Selection for Aircraft Commander Upgrade/Certification.** MPD pilots must meet prerequisites defined in [Table 5.1](#) as well as complete the MPD Phase II guide prior to starting Pilot Checkout course. Based upon performance, experience, and requisite flight hours, Phase II MPD pilots will be identified for upgrade by squadron leadership via the STRP. Selection for Phase II and Aircraft Commander upgrade may be concurrent. Additionally, MPD pilots require a minimum of one AF Form 8 evaluation after FP mission ready certification and prior to entry into Aircraft Commander upgrade (N/A for MAF crossflow, FAIP/OSA, or non- mobility weapon system pilots).

5.3.4.3. **AMC Orientation Tour / GRACC (V282).** This event provides an in-depth look at selected AMC and 618 AOC (TACC) operations as well as an opportunity to interact with command senior staff. Ideally, this course should be completed by Aircraft Commander candidates after completing V281, but before beginning formal Aircraft Commander upgrade training (ACU or PCO). GRACC is mandatory for AMC pilots and highly encouraged for PACAF, USAFE, AFRC, and ANG mobility forces pilots upgrading to Aircraft Commander. GRACC is transferable between all mobility weapon systems. For AMC pilots, V282 will be completed prior to Aircraft Commander certification. If unable to complete V282 prior to certification, units may schedule attendance up to 90 days after certification; beyond 90 days requires OG/CC approval. See [paragraph 1.18.2](#) for details. Additional information is available via ETCA. (T-3)

5.3.5. **MPD Phase III.** Pilot Checkout (PCO). After the Sq/CC determines (via the STRP) an upgrade training start date, training time begins and the upgrade candidate will begin applicable PCO training events, as required (see [Table 1.2](#) for training time limitations). Prior to starting training, the training office will open and maintain an AF Form 4022 until the upgrade candidate is certified as an Aircraft Commander. Units using multiple folders to document a pilots training progress may combine those into a single training folder at the unit's discretion. Training guides are authorized. **Note:** Phase III refers to in-unit upgrade to aircraft commander and does not apply to students going through the formal PCO course at a KC-10 FTU. FTU training time starts on the published Class Start Date (CSD).

5.3.5.1. Current and qualified Aircraft Commander candidates accomplishing MPD Phase III training events require IP supervision during non-critical phases of flight and direct IP supervision during critical phases of flight (see course syllabi for exceptions). Two Aircraft Commander candidates may sit in the left and right seats under IP supervision in the simulator, as required.

5.3.5.2. The Aircraft Commander candidate will accomplish the following requirements prior to the Aircraft Commander Review and Certification (R&C) Board:

5.3.5.2.1. The preferred method for completing Aircraft Commander upgrade training is by completion of the Pilot Check Out (PCO) Course conducted by the contractor followed by flightline training conducted by the Formal Training Unit

(FTU). Contractor training covers emergency procedures, tactics, and Aircraft Commander duties. FTU training completes air refueling training. Units retain the option to conduct in-unit Aircraft Commander upgrades without waiver for highly qualified and experienced pilots.

5.3.5.2.2. Aircraft Commander candidates must be current in applicable Mission Certification Training events prior to certification.

5.3.6. Evaluation and Certification. Prior to certification, the upgrade candidate must demonstrate aircraft commander proficiency during an Aircraft Commander flight evaluation, to include receiver air refueling IAW AFI 11-2KC-10, Volume 2. PCO culminates with a Sq/CC's R&C Board recommendation.

5.3.7. Aircrew Designation Codes. Mobility pilot designation codes are IAW AFI 11-401 AMCSUP I, *Aviation Management*, AMC pilot designation codes. During Phase IB training, pilots will log "UP" time (except PCO and IAC students).

Table 5.2. Instructor Upgrade Prerequisites.

From	To	Prerequisites	Tasks and Events Required Before Certification	Notes
AC	Instructor Pilot	200 TFT after KC-10 Aircraft Commander certification and Formation Certifications complete	KC-10 IAC course and Initial Instructor Evaluation	1
FE	Instructor FE	1500 TFT with 300 KC-10 PAA or 1800 TFT with 150 KC-10 PAA and 1 year experience as MWS Instructor FE	FIC course and Initial Instructor Evaluation	2
BO	Instructor BO	1500 TFT with 300 KC-10 PAA or 1800 TFT with 200 KC-10 PAA and 1 year experience as MWS Instructor BO	BIC course and Initial Instructor Evaluation	3

NOTES:

Enlisted aircrew qualifications are separate and distinct from skill level qualification. When AF Form 8 is completed for the applicable flight evaluation, the crewmember is qualified to perform duties assigned for the crewmember qualification regardless of skill level. Aircrew instructor and flight examiner qualifications are also separate and distinct from OJT trainer or certifier designation and are reflected in AFSC by use of "K" prefix (aircrew instructor) and "Q" prefix (aircrew standardization and flight examiner).

1. Total Flying Time (TFT) represents all flying time logged aboard a fixed wing aircraft as a military pilot including UPT "student" and "other" time (but does not include time in another aircrew specialty). WST time is creditable to meet TFT requirement.
2. Instructor Flight Engineer candidates with total flying hours logged from other than the Flight Engineer crew position (i.e. Boom Operator, Loadmaster) require 2000 total flying hours and 750 hours as a KC-10 Flight Engineer prior to consideration for upgrade.
3. Instructor Boom Operator candidates with total flying hours logged from other than the

Boom Operator crew position (i.e. Flight Engineer, Loadmaster) require 2000 Total flying hours and 750 hours as a KC-10 Boom Operator prior to consideration for upgrade.

5.4. Aircrew Instructor Program. Instructor candidates will be selected based on experience, judgment, ability to instruct, flying skill, and technical knowledge. For specific instructor upgrade prerequisites, see **Table 5.2**.

5.4.1. Instructor candidates, who are current and qualified in the aircraft, previously attended a formal instructor school for instructor qualification, were qualified instructors in any US Air Force aircraft, and who meet the minimum flying hour requirements may upgrade in-unit with OG/CC approval. MAJCOM waiver is not required. Sq/CC will determine training required to complete the instructor upgrade in-unit, including evaluation, IAW AFI 11-2KC-10, Volume 2. **(T-3)**

Table 5.3. Evaluator Upgrade Prerequisites.

From	To	Prerequisites	Tasks and Events Required Before Certification
Instructor Crewmember	Flight Examiner Crewmember	Sq/CC recommendation	In-unit Flight Examiner checkout
<p>NOTE: Enlisted aircrew qualifications are separate and distinct from skill level qualification. When AF Form 8 is completed for the applicable flight evaluation, the crewmember is qualified to perform duties assigned for the crewmember qualification regardless of skill level. Aircrew instructor and flight examiner qualifications are also separate and distinct from OJT trainer or certifier designation and are reflected in AFSC by use of “K” prefix (aircrew instructor) and “Q” prefix (aircrew standardization and flight examiner).</p>			

5.5. Flight Examiner Certification. Flight examiner prerequisites are in **Table 5.3**.

5.5.1. Sq/CC will recommend instructors for flight examiner certification. Instructors identified for certification as flight examiners must possess satisfactory knowledge of training, evaluation policies and procedures, and the ability to administer evaluations according to applicable publications. Flight examiner candidates will:

5.5.1.1. Observe qualified examiners conducting a cross-section of evaluations, to include techniques used to evaluate aircraft systems and flight directive knowledge.

5.5.1.2. Demonstrate comprehensive knowledge and application of command policies, AFI 11-202, Volumes 1 and 2, AFI 11-2KC-10, Volumes 1 and 2, and MAJCOM supplements.

5.6. Special Qualifications and Certifications: Certain KC-10 aircrew qualifications and certifications are one-time events trained after completion of formal qualification **Exception:** see [paragraph 2.9.2](#). Special qualifications and certifications may require an evaluation or an AF Form 4324 update. These programs are usually taught at the unit level by Air Force instructors of like specialty.

5.6.1. **EMCON Options 3 and 4 Certification Training (N013 & N014):**

5.6.1.1. Sq/CC will certify crewmembers to accomplish EMCON 3 or 4 procedures during formation, rendezvous, and AR on both operational and training sorties. All members of the crew must be certified or in training under the supervision of a like specialty instructor. Thorough coordination with the receiver aircrew is required for units to practice EMCON 3 or 4 on non-operational training missions. Coordination should be accomplished during mission planning phase. In no case will a crew launch under EMCON 3 or 4 without prior coordination with the receiver crew. Document certification via AF Form 4324 as EMCON 3-Certified and EMCON 4-Certified. ARMS event identifiers are N013 and N014. Accomplishment during Phase IB is creditable for this certification.

5.6.1.2. Training Program. Unit Sq/CC will determine training requirements based on the crewmember's experience and the unit's mission. Boom Operators with less than 200 flying hours must receive a minimum of one flight with an instructor stressing radio silent procedures before certification. Units will include details of the EMCON Option 3 and 4 programs in local supplement.

5.6.2. Formation Lead Certification (Q011):

5.6.2.1. The squadron commander is responsible for developing a formation lead certification training program. Document the certification via AF Form 4324 as Q011 and will, at a minimum, follow the prescribed guidance in **paragraph 7.14.7** of this instruction under Q011 certification.

5.6.3. ILS PRM Certification Training (Q017):

5.6.3.1. AFI 11-202, Volume 3 requires aircrews operating aircraft equipped with TCAS to receive training for operations at airports with ILS Precision Runway Monitoring (PRM) Approaches. The Sq/CC or designated representative will certify pilots upon completion of one-time training. Document certification via AF Form 4324 as "ILS PRM-Certified". ARMS event identifier is Q017, ILS PRM. Before operations at airports with ILS PRM approach capabilities, pilots will complete the following training and certification:

5.6.3.2. Training Program. Review ILS PRM requirements according to the Airman's Information Manual, Part 5-4-15. View FAA video, "ILS PRM Approach Information for Air Carrier Pilots" available for download. Complete appropriate training including viewing of the video at the FAA web site: http://www.faa.gov/training_testing/training/prm/.

5.6.4. Fighter Contact Certification (Q022 & Q023). Day and Night Receptacle Equipped Fighter Certification will be documented on AF Form 4025 and via AF Form 4324.

5.6.4.1. The FTU should make all possible attempts to complete Q022/Q023 training during Phase IB to include utilizing the student's maximum initial qualification training timeline. If Q022 or Q023 is not accomplished during Phase IB, the AF Form 4025 will clearly state which certifications were not completed. These certifications may then be accomplished by AF instructors of like specialty during MCT. Boom Operators will not be scheduled to refuel receptacle-equipped fighter type aircraft without an instructor until both Q022 and Q023 are completed and certification is documented.

5.6.5. Aircraft Commander Touch-and-Go Landings (Q050):

5.6.5.1. Training Program. The squadron commander is responsible for developing a certification program allowing Aircraft Commanders the opportunity to practice this skill without IP or Sq/CC certified Aircraft Commander supervision. Document certification via AF Form 4324. ARMS event identifier is Q050, Aircraft Commander Touch-and-Go Landings.

5.6.6. Aircraft Commander Supervision of Touch-and-Go Landings (Q051):

5.6.6.1. Training Program. Following aircraft commander upgrade training (either formal course or in-unit) additional in-unit training will be accomplished to demonstrate the Aircraft Commander's ability to supervise touch-and-go landings. Document the certification via AF Form 4324. ARMS event identifier is Q051, Aircraft Commander Supervision of Touch-and-Go Landings.

5.6.6.2. Touch-and-go landings may be performed by current and qualified instructor pilots, Sq/CC certified pilots, as well as any other pilot under the direct supervision of an instructor or aircraft commander certified to supervise under this paragraph.

5.6.6.3. Non-current aircraft commanders must be under the direct supervision of an IP to regain currency in touch-and-go landings.

5.6.7. Aircraft Commander Supervision of Receiver Air Refueling (Q052):

5.6.7.1. The squadron commander is responsible for developing a certification program which will allow aircraft commanders to supervise pilots (that are not receiver air refueling qualified) as they practice receiver air refueling. The aircraft commander and the other pilot must each be certified for the event. Document the certification via AF Form 4324. ARMS event identifier is Q052, Aircraft Commander Supervision of Receiver Air Refueling.

5.6.8. Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) Certification (Q150):

5.6.8.1. In order to be certified for CNS/ATM operations, Pilots and Flight Engineers require the following:

5.6.8.1.1. Review of CNS/ATM CBTs

5.6.8.1.2. Attendance at ATS Contractor-taught CNS/ATM course to include aircraft field trip

5.6.8.1.3. 1 Flight aboard a CNS/ATM aircraft (or CNS/ATM modified ATD) under supervision of an instructor of like specialty to a proficient level. Document completion in GTIMS.

5.6.8.1.4. Document the certification via AF Form 4324. ARMS event identifier is Q150, CNS/ATM Certification.

5.6.9. MPD Receiver Air Refueling (Q583):

5.6.9.1. The squadron commander is responsible for developing a receiver AR certification program to be completed by MPD pilots prior to attending PCO upgrade. As a minimum, the ability to move safely from the pre-contact position, to contact, and back

again must be demonstrated to an instructor pilot prior to certification. Document the certification via AF Form 4324. ARMS event identifier is Q583, MPD Receiver Air Refueling.

5.6.10. Aircraft Commander Right Seat Receiver Air Refueling (Q584):

5.6.10.1. The squadron commander is responsible for developing a program to certify ACs to accomplish right seat receiver air refueling. This certification is not required for MR certification. Receiver AR training events may be logged from either seat after an individual is certified to accomplish right seat receiver AR. Document the certification via AF Form 4324. ARMS event identifier is Q584, Aircraft Commander Right Seat Receiver Air Refueling.

5.6.11. Large Formation Certification (Q580):

5.6.11.1. The squadron commander is responsible for developing a large formation certification training program for all pilots. This certification must include a minimum of one flight flown under supervision of an instructor pilot. If instructor manning prevents placing IPs in all aircraft, units may place an IP in one aircraft in the formation. The optimum is the last aircraft so that the IP may monitor all aircraft of the formation. Commanders of deployed units or tanker task force (TTF) commanders may certify TDY crew members and will forward certification paperwork to the crew member's home unit for filing in the member's training folders. Requires pre-coordination with all formation participants and associated AR support. MPD pilots that were previously certified are not required to be re-certified following PCO. Accomplishment during Phase IB is only creditable towards certification if specifically documented on the AF Form 4025. Document the certification via AF Form 4324. ARMS event identifier is Q580, Large Formation Certification.

5.6.12. Phoenix Banner, Silver and Copper Certification (Q544) : Sq/CCs will identify their most highly qualified crewmembers for entry into certification training. Training will focus on the unique circumstances that differentiate this mission from other mobility missions. Document the certification via AF Form 4324. ARMS event identifier is Q544, Phoenix Banner, Silver and Copper Certification.

5.6.12.1. Wings will establish and maintain Phoenix Banner training programs. As a minimum, training will consist of an instructor-led in-depth review of AFI 11-289, *Phoenix Banner, Silver, and Copper Operations*, discussion of tasking and execution agencies for Phoenix Banner missions, and how the aircrew will interface with these agencies. Furthermore, the program will address the personnel to coordinate with, in case of diversion or delay, including the Presidential Advance Agent, US Secret Service, and HMX-1 representative. The goal of training is to educate crewmembers on the requirements for these individuals/agencies and illustrate their ability to help accomplish the mission. Following the review, an open book examination of AFI 11-289, minimum passing score of 80 percent, corrected to 100 percent will be accomplished. All aircrew members will complete the training program and be certified prior to flying unsupervised on a PHOENIX BANNER, SILVER, or COPPER mission.

Chapter 6

AIRCREW TRAINING SYSTEM (ATS)

6.1. Description. The KC-10 ATS is a civilian contractor-provided aircrew training system. The ATS contractor provides training courseware and all academic and ATD instruction. The Air Force conducts all flight training and administers all evaluations. The ATS contract guarantees trained students meet government standards. Formal ATS courses are listed in [Table 6.2](#) and non-formal ATS courses are listed in [Table 6.3](#).

6.2. Applicability. As defined in AFI 11-202, Volume 1.

6.2.1. Purpose. KC-10 ATS is a system of academics, ATD sessions, and ground training phases. This system provides qualification, requalification, upgrade, senior staff, differences, and continuation training to attain and maintain appropriate qualification for KC-10 crewmembers and maintenance engine run technicians.

6.2.2. Goal. The goal of the ATS program is to optimize aircrew training through the integrated use of academics, ATD, and flight line KC-10 aircraft instruction. The KC-10 ATS, by contract, establishes performance requirements in the ATS Statement of Work (SOW) and system specification.

6.2.3. Responsibilities:

6.2.3.1. ATS Contractor.

6.2.3.1.1. Each ATS site will provide academic and ATD training for KC-10 crewmember qualification, requalification, upgrade, senior staff, differences, and continuation training programs to meet course objectives.

6.2.3.2. AMC/A3T.

6.2.3.2.1. Provide overall management authority for KC-10 contract training.

6.2.3.2.2. Act as AMC focal point for review of all recommended initiatives directed toward the KC-10 training contract. This includes recommendations for changes submitted by contractor or other Air Force agencies.

6.2.3.2.3. Ensure instruction is of the highest quality through the review of crewmember surveys, instructor/examiner feedback, FTU feedback, and through their own evaluations.

6.2.3.3. Det 1 AMCAOS:

6.2.3.3.1. Conduct an annual SIMCERT (semi-annual for FAA level C+ devices) on all ATDs.

6.2.3.3.2. Assist in scheduling unit crewmembers required by the contractor for courseware development in Individual Tryouts (ITO) and Small Group Tryouts (SGTO).

6.2.3.4. Air Force-Appointed ATS Contracting Officer Representative (COR). CORs are primary focal points and liaisons between the Air Force and contractors at each ATS site. CORs are the sole point of contact for their respective ATS. The COR may direct the

contractor to perform or stop work only on safety related issues. The Administrative Contracting Officer and Procurement Contracting Officer have the overall authority to direct contractor start/stops on the ATS.

6.2.3.5. Wings and Groups:

6.2.3.5.1. Provide constructive reports and inputs concerning the KC-10 ATS program to AMC/A3TK.

6.2.3.5.2. Provide assistance and support with subject matter expertise when requested by AMC/A3T or Det 1 AMCAOS.

6.2.3.5.3. Review ETCA website course description and adhere to guidance and procedures concerning requesting, allocating, sub-allocating, and confirming attendance at scheduled formal training courses. Close coordination with the formal school quota manager (AMC/A3TK or A3TF) is imperative to ensure effective utilization of training slots and contractor resources.

6.3. Dedicated Training Time. As defined in AFI 11-202, Volume 1, **paragraph 5.2.**

6.3.1. It is imperative that students complete training in a timely and uninterrupted manner. Students will enroll on a full-time basis (AFRC students will be available for the entire ground and simulator phases, but do not need, though highly encouraged, to be on a full-time basis for the flight phase). Students will be relieved of duties not directly related to training.

Exception: Supervisory personnel may continue their normal duties as time permits.

6.4. ATS Course Prerequisites. ATS course prerequisites are listed in [Table 5.1](#), [5.3](#), and [6.1](#). Each ATS course is designed and based on student prerequisites being met. Prerequisites may include a minimum number of flying hours, squadron operations officer recommendation, and completion of applicable training guides. AETC maintains a list of formal school courses on the Education and Training Course Announcement (ETCA) website.

Table 6.1. Initial Qualification Training Prerequisites.

From	To	Prerequisites	Tasks and Events Required Before Certification
Unqualified	MP	Previous MWS Aircraft Commander or FAIP/OSA Aircraft Commander; 1000 Total flying hours; 100 PAA flying hours	Aircraft Commander Initial Qualification (ACIQ) PTX-1 course and Aircraft Commander Qualification Evaluation; Mission Certification Training
Unqualified	FP	SUPT Graduate	Pilot Initial Qualification (PIQ) course and Pilot Qualification Evaluation; Mission Certification Training
Unqualified	FBP	Basic Flight Engineer-Undergraduate Flying Training (CEA CoE)	Flight Engineer Basic Prequalification Course (FBP) is prerequisite to FIQ for students with less than 3 years as fixed-wing performance engineer; Mission Certification Training

Unqualified	FIQ	FBP or 3 years as performance fixed-wing engineer	Flight Engineer Initial Qualification (FIQ) course and Qualification Evaluation; Mission Certification Training
Unqualified	BBQ	Basic Boom Operator-Undergraduate Flying Training (CEA CoE)	Boom Operator (Basic) Initial Qualification (BBQ) course and Qualification Evaluation; Mission Certification Training
NOTE: Total flying hours represents all flying time logged aboard a fixed wing aircraft as a “military” pilot including UPT, Student, and “Other” time (but does not include time in another aircrew specialty).			

Table 6.2. KC-10 ATS Formal Courses.

Course ID	Title	Students	Training Devices PH-1A	Training Days PH-1A	Notes
KC-10 BBQ	Boom Operator (Basic) Initial Qualification	1	21 BOTs 2 FTDs 6 CLTs	37 days + 2 CRM	4
KC-10 BRQ	Boom Operator Requalification	1	14 BOTs 1 FTD 3 CLTs	13 days	4
KC-10 BIC	Boom Operator Instructor Course	2	12 BOTs, 2 FTDs, 6 CLTs	18/15 days	1,4
KC-10 FBP	Flight Engineer Basic Prequalification Course	2	1 WST 2 FTDs 1 BOT	14 days	
KC-10 FIQ	Flight Engineer Initial Qualification	1	24 WSTs 30 FTDs	54 days	6
KC-10 FRQ	Flight Engineer Requalification	1	9 WSTs 7 FTDs	21 days	2
KC-10 FIC	Flight Engineer Instructor Course	2	10 WSTs 1 FTD	18/15 days	1
KC-10 PIQ	Pilot Initial Qualification	2	24 WSTs 17 FTDs	54 days	6
KC-10 ACIQ/PTX-1	Aircraft Commander Initial Qualification	2	24 WSTs 17 FTDs	54 days	6
KC-10 PCO	Pilot Check Out Course	2	8 WSTs 2 FTDs	10 days	

KC-10 PRQ/PTX-2	Pilot Requalification	2	9 WSTs 7 FTDs	24 days	
KC-10 IAC	Instructor Aircraft Commander Course	2	10 WSTs 1 FTD	18/15 days	1
KC-10 SSF	Senior Staff Officer Familiarization	2	2 WSTs 1 FTD, 1 BOT	3 days	3
KC-10 SOC	Senior Officer Course	1	5 WSTs 1 FTD	5 days	3,5
<p>NOTES:</p> <ol style="list-style-type: none"> 1. There are two tracks available for instructor upgrade. Track I is for students that have never been Air Force flight instructors (the longer course that includes extra academics) and Track II is for all others. For Instructor Courses that include the three-day Academic Instructor Course (AIC) portion, if the student was a previously qualified instructor, they need not accomplish this training and will start three days later. 2. KC-10 FRQ requires pilot class KC-10 PRQ to be scheduled at the same time. 3. See paragraph 2.7 for additional requirements. 4. While planned for one student, this course can accommodate two students by doubling the number of BOT periods required. 5. The squadron to which the Senior Officer is attached will provide an appropriate pilot 'seat filler' to complement their SOC student. 6. Course is designed for one ACIQ, one PIQ, and one FIQ student or two PIQ students and one FIQ student. 					

Table 6.3. KC-10 ATS Non-Formal Courses.

Course ID	Title	Course Student	Student s	Trainin g Devices	Trainin g Days	Notes
KC-10 MEQ	Maintenance Engine Run Qualification	MX Member receiving initial training for KC-10 Engine Ground Operation	2	2 FTDs	1 day	
KC-10 MER	Maintenance Engine Run Refresher	MX Member receiving refresher training for KC-10 Engine Ground Operation	4	2 FTDs	1 day	
KC-10 TEF	Two Engine Ferry Course	Highly experienced OG / Stan Eval Pilots and Flight Engineers	2/ 1	1 WST	2 days	

KC-10 PFREF	Pilot / Flight Engineer Refresher	Continuation Training for KC-10 Qualified Pilots and Flight Engineers	2/ 1	2 WSTs	2 days	
KC-10 BREF	Boom Operator Refresher	Continuation Training for KC-10 Qualified Boom Operators	1	3 BOTs	2 days	
KC-10 ATT	Additional Training Time (4+00)	KC-10 qualified Pilots and Flight Engineer	2/ 1	1 WST	1 day	
KC-10 CAT II	Category II ILS Training	KC-10 qualified Pilots and Flight Engineers	2/ 1	1 WST	1day	1
KC-10 HAZ	Hazardous Cargo Training	KC-10 qualified Pilots and Boom Operators				2
Course ID	Title	Course Student	Student s	Trainin g Devices	Trainin g Days	Notes
KC-10 CRM- IT	Crew Resource Management Initial Training	All KC-10 Crewmembers				3
KC-10 CRM- RT	Crew Resource Management Recurring Training	All KC-10 Crewmembers				3
KC-10 CRM-I/ET	Crew Resource Management Instructor/Examin er Training	All KC-10 Instructors & Examiners				3
KC-10 ATD-P/FE	Aircrew Training Device Course (P/FE)	KC-10 IP/Evaluators KC-10 IF/Evaluators	3/ 2	2 WSTs 1 FTD	2 days	4
KC-10 ATD-BO	Aircrew Training Device Course (BO)	KC-10 IBO/Evaluators	2	2 BOTs	2 days	4

NOTES:

1. This course is archived for future reference/use and are not updated nor maintained by the ATS contractor. They can be updated for use following AMC/A3TK notification to the contractor.
2. This training is Computer Based Training.
3. CRM training is developed in accordance with AFI 11-290, *Cockpit/Crew Resource Management Training Program*. Training is included in the requisite Initial Qualification, Instructor Qualification, and Refresher courses.
4. Course designed to teach KC-10 qualified instructors and evaluators to operate devices (WST and FTDs for IPs/IFEs, BOT for IBOs).

6.5. Lesson Objectives. Contractor-developed lesson objectives are based on requirements in this instruction.

6.5.1. General. The training contractor will provide KC-10 aircrew members with ground-based training required to meet syllabus objectives for initial qualification, requalification, upgrade, senior staff, differences, and continuation training.

6.5.2. Objective. Ensure all aircrews maintain proficiency required to safely operate the aircraft and effectively perform the assigned mission. Crewmembers will utilize training devices to enhance training areas that ATDs are particularly well suited to accomplish (e.g., wind shear and microburst training, low visibility approaches, systems knowledge, emergency and abnormal procedures, etc.).

6.5.3. Crew Resource Management (CRM) training. The KC-10 ATS incorporates CRM principles during all phases of training including initial and continuation training to meet requirements of AFI 11-290. Instructors use AF Form 4031, *CRM Skills Criteria Training/Evaluation* as prescribed in AFI 11-290, for CRM skills training.

6.6. Unsatisfactory Student Progress. If a student's training progress is unsatisfactory, the contractor will notify the student's squadron commander. Following a review of the student's record, the government (Sq/CC, OSS/OST, Det 1, COR) will determine whether to continue or terminate training.

6.6.1. The contractor will provide written feedback to the student's gaining unit commander or training office for students who display substandard performance.

6.6.2. Remediation Procedures. ATS contractor, COR, AMCAOS Det 1, and HQ AMC/A3TK must receive prompt notification of failed flight evaluations culminating an ATS course. Local procedures must ensure notification is completed within 24 hours of failure for local evaluations and within 24 hours after return to home station for off-station evaluations. Remediation subsequent to a failed flight evaluation may be the ATS contractor's responsibility, Air Force's responsibility, or a joint responsibility, depending on the nature of failure. In every case, close coordination is required to achieve maximum trainee progress. Direct contact with appropriate ATS instructor supervisor is encouraged.

6.6.2.1. Remediation Scheduling:

6.6.2.1.1. When a trainee is required to return for remediation regarding deficient areas, the trainee's unit, appropriate wing or group training office, and ATS training manager will coordinate training start and completion dates.

6.6.2.1.2. The ATS contractor will contact the trainee's squadron commander if a trainee is identified, during ATS contractor's instruction, to need remediation or additional training. If the ATS contractor determines no further amount of remediation or additional instruction will result in the individual attaining required proficiency level, the contractor will expeditiously inform the trainee's squadron commander verbally and follow-up in writing. As a minimum, the Air Force ATS COR will receive a courtesy copy of this documentation. Following a review of the student's record, the government (Sq/CC, OSS/OST, Det 1 AMCAOS, and COR) will determine whether to continue or terminate training.

6.7. Courseware Changes. Changes to ATS courseware may be proposed by any KC-10 crewmember. Complete recommended change on ATS contractor's change proposal form and submit to the local COR. Change proposals will be sent through wing or group training and ATS COR offices to Det 1 AMCAOS. Det 1 AMCAOS will coordinate with HQ AMC/A3TK, the ATS contractor, and the originator to provide feedback to reflect action taken. Change proposal forms are available from ATS contractor site manager at each site.

6.8. Scheduling:

6.8.1. AMC/A3T Responsibilities:

6.8.1.1. Submit the following fiscal year's student training requirements to the contractor no later than 28 February of the current year.

6.8.1.2. Publish and distribute the next fiscal year's annual programmed flying training (PFT) schedule no later than 1 June of the current year.

6.8.1.3. Coordinate changes to the current PFT with the KC-10 program management team and the contractor and then distribute those changes.

6.8.2. Contractor Responsibilities: (These reports are exempt from Office of Management and Budget review in accordance with Public Law 96-511, *The Paperwork Reduction Act of 1980, as amended, Title 44, United States Code, Chapter 35.*)

6.8.2.1. Develop and submit the following year's PFT to AMC/A3TF no later than 15 April of the current year.

6.8.2.1.1. Notify AMC/A3TF and A3TK prior to 15 April of the current year for resolution if yearly PFT request received by the contractor exceeds contracted PFT baselines from either the overall PFT numbers requested or due to contractor limitations.

6.8.2.2. Provide units with a quarterly pilot, FE, and BO refresher and Additional Training Time (ATT) schedule no later than 45 days prior to the start of the following quarter. The contractor will fill any vacancies in each quarter's draft WST and BOT schedule with ATT periods. The goal is to ensure the squadrons have the opportunity to use 100% of available WST time as long as the contracted ATT throughput is not exceeded. This means the contractor should not leave an available period unscheduled in

the draft schedule due to lack of instructor availability. The training facility manager and all local KC-10 squadrons will establish mutually agreeable scheduling procedures.

6.8.3. OG/CC OPR (AFRC/A3TA) Responsibilities:

6.8.3.1. No later than the last week in November of each year, provide AMC/A3TF with estimated training requirements (initial qualification, requalification, upgrade, senior staff, ATD refreshers, engine run, and additional simulator training time) of their units for the next fiscal year.

6.8.3.2. Coordinate with AMC/A3TF when additional training slots are required. Additional requirements for training slots will be thoroughly justified.

6.8.3.3. Provide Wing Formal Training with either a form letter or an annotated class roster indicating the date and names of crewmembers completing their evaluation.

6.8.4. Unit Responsibilities:

6.8.4.1. No later than the last week in October of each year, provide OG/CC (AFRC/A3TA for AFRC units) with the estimated training requirements (initial qualification, requalification, upgrade, ATD refreshers, and additional simulator training time) of their units for the next fiscal year.

6.8.4.2. When filling initial, requalification, and upgrade course allocations, ensure allocation RIPS are sent to the unit MPS with the minimum: course, class number, grade, name, and SSN of the individual scheduled for training. Crewmembers are to be reminded to receive an ADSC briefing by MPS prior to attending training (N/A AFRC). When training involves TDY, it is unit funded. In this case, units must provide fundcite to the applicable MPS.

6.8.4.3. No later than 45 days prior to the class start date, units must inform AMC/A3TF (AFRC/DPTF for AFRC units) and MPS or DPMPC with class number, name, and a SSN of personnel attending.

6.8.4.3.1. AMC/A3TF will forward this information to contractor site managers at the beginning of every month. The contractor site manager will compare the AMC/A3TF list to the PFT to ensure every course on the AMC/A3TF list has the same number of students as the PFT. On the first day of class, the contractor will also ensure only the students designated on the AMC/A3TF list are trained. If no student or the wrong student attends the class, the contractor will coordinate with the unit and AMC/A3TF to correct the problem.

6.8.4.4. Thirty (30) days prior to the start of a new quarter, all units must notify AMC/A3TF of all allocations they do not plan to use during that quarter.

6.8.4.5. AMC/A3TF makes unused allocations available to other units. Normally, AMC allocated slots remain AMC slots until relinquished by AMC/A3TF. Conversely, AFRC slots remain AFRC slots until relinquished by AFRC/A3TA.

6.8.4.6. Units desiring to trade quotas may do so without AMC headquarters' approval; however, they must inform AMC/A3TF and all appropriate agencies and units.

6.8.4.7. Requests for additional training quotas will be submitted directly to AMC/A3TF with information copies to OG/CC and AFRC/A3TA (if applicable). AMC/A3TF will

take required action and inform applicable command formal training (DPPET-AMC and DPTF-AFRC) of any new authorized classes.

6.8.4.8. Coordinate aircrew refresher and additional training time scheduling requirements with the applicable training facility. The unit will work with the training facility manager to establish mutually agreeable and effective scheduling procedures. As a minimum, in accordance with the contract, the contractor will provide next quarter's schedule to the units 45 days prior to the start of the quarter. Units will designate which unit will use each training period and cancel any training that is not needed. Units will then return the schedule with squadron assignment no later than 20 days prior to the start of the quarter. Each RegAF and AFRC associate unit will coordinate closely when scheduling ATD training. Training slots that cannot be filled by one unit must be offered to other units in a timely manner. Training slots should not go unfilled unless absolutely unavoidable.

6.8.4.9. Ensure the training contractor is kept apprised of scheduling changes or training requirements. The contractor should be provided as much advance notice as practical.

6.8.4.10. When practical, the contractor will schedule one ATT per week per RegAF squadron. These ATTs will be scheduled so they may be used for crewmember evaluations on the third consecutive day following a two-day refresher. Intent is to move RegAF simulator evaluations out of quarterly refresher periods and into ATT simulator periods.

6.8.4.11. When practical, squadrons will use these ATT periods to schedule RegAF recurring simulator evaluations. If practical, try to schedule more than one evaluation during the same ATT, i.e. a pilot and flight engineer who are both in their eligibility window. Units should also strive to maintain crew integrity throughout the 3-day period.

6.8.4.12. Squadron schedulers will notify the contractor training administrator with the names of the students for refresher ATD periods. The squadron scheduler may replace individuals to meet mission requirements. If the squadron cannot fill the training session with a full crew, the contractor must be notified of the cancellation by 1600 Local, the work day prior to the scheduled training. When the squadron does not fill the scheduled training session and does not notify the contractor administrator of a cancellation, this constitutes a "no-show." No-shows are submitted to AMC on the contractor monthly throughput report. Det 1 AMCAOS will notify squadron Director of Operations of any "no-shows" incurred by the squadron.

6.8.5. Simulator Tours: See **paragraph 6.13**.

6.9. Administration:

6.9.1. ATS Feedback.

6.9.1.1. Air Force-appointed ATS CORs are primary focal points and the liaison agency between the Air Force and the ATS contractor. CORs are the only Air Force personnel empowered to evaluate any component of contract compliance. These individuals are entrusted with quality assurance, are the only appropriate office (unit-level) to direct contractor to perform or stop work via the Administrative Contracting Officer's (ACO) or Procurement Contracting Officer's (PCO) direction, and are accountable for these actions.

Each wing or group commander will establish ATS CORs positions and enforce directives, requirements, and procedures established by DoD and MAJCOM directives and publications. ATS CORs must maintain a current copy of the ATS contract(s), designated quality assurance regulations and directives, and quality assurance procedures.

6.9.1.2. Operational Evaluation. The ATS contractor is required to evaluate the ATS program (both formal and non-formal) and its graduates' on-the-job performance as stated in the contract.

6.9.1.3. Feedback includes inputs from graduates, flight commanders (or designated representatives), and examiners. Analysis of actual performance (Air Force evaluation) and trainee critique data help to determine if graduates' on-the-job performance meets MTL and established performance standards. The importance of this on-the-job performance feedback from graduates, flight commanders, and examiners cannot be overemphasized. This data is vital to establishing a database to identify trends and support revisions to the ATS.

6.9.2. ATS Data Collection. Internal and external data will be collected, reported, and corrective actions taken according to approved operation evaluation plan.

6.10. Training Implementation/Student Expectation:

6.10.1. Crew Member Preparation. The crew member is responsible for adequate preparation prior to reporting for each ATD mission. This includes a review of the mission profiles, pre-course study material, all associated normal, abnormal, and emergency procedures, and applicable aircraft systems. Aircraft Systems Refresher CBTs (G220) will be accomplished by the Flight Engineer and Boom Operator during the quarter for those systems topics IAW [Table 4.1](#)

6.10.2. Mission Pre-Briefing. Prior to each ATD mission, the instructor will brief crew members on mission objectives, specific training items to be accomplished, scheduled systems and performance training, crew resource management, and any additional area of emphasis. The briefing should include data and information necessary to complete the mission, special procedures, and aircraft systems. The information presented in the briefing should correlate to the tasks to be reinforced in the training device. It should include any changes or adjustments to pre-positioned data and a review of the overall mission and coordination of individual crewmember responsibilities. Prior to executing the scheduled training event, a designated crewmember should conduct a mission briefing covering AFI 11-2KC-10, Volume 3 briefing items.

6.10.3. Mission Debrief. Following ATD missions, all aspects of the mission will be discussed. Emphasis will be placed on all observed weak areas. The crew is required to enter maintenance discrepancies in the AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document* prescribed by T.O. 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policy and Procedures* and debrief the maintenance technician.

6.11. Browsing Training Products. KC-10 crewmembers and engine-run personnel are encouraged to browse any and all lessons, guides, and material within the ATS. This is particularly appropriate to those crewmembers preparing to enter upgrade courses. Use the following guidelines:

6.11.1. Browser time is on a space-available basis.

6.11.2. Coordinate browser requests with the local ATS site manager.

6.11.3. Trainees are not to be scheduled to browse lessons for remediation. Remediation will be scheduled by coordinating with the ATS contractor. Browsing a lesson does not enable the trainee to take the end-of-lesson test. Trainees in remediation will be enrolled in lessons for review in order to take the end-of-lesson test and keep a permanent record of the remediation.

6.12. Aircraft Flights for ATS Training Instructors.

6.12.1. ATS Contractor Personnel Flight Operations. ATS Training Instructors observe in-flight operations according to AFI 11-401 and the KC-10 ATS contract. Flights will be accomplished according to the terms and conditions of a current government contract. ATS contract instructors who observe local missions (defined as training missions originating and returning to home station) may observe the mission in Mission Essential Personnel (MEP) status. ATS contract instructors are authorized (at the Aircraft Commander's discretion) to occupy the flight deck during any phase of flight. As MEPs, ATS contract instructors may observe all portions of KC-10 training missions to include tactical maneuvers, receiver air refueling, tanker air refueling, touch-and-go landings, and full stop taxi back landings. ATS contract instructors are not authorized access to flight controls nor shall they occupy a primary crew position. Units detail local requirements in a supplement to this AFI.

6.12.1.1. ATS contractor instructors are required to fly a minimum of one time per year, subject to OG/CC concurrence and the ATS contract.

6.13. ATS Facility Tours.

6.13.1. Wing training offices will coordinate all requests for KC-10 ATS facility tours with the contractor as soon as possible, but at least 24 hours in advance to ensure the tour will not impact simulator maintenance or training. Training will not be affected to meet a tour time and tours requiring whole periods or a significant part of simulator periods will typically not be supported. The fifteen-minute break during each WST is the most opportune time to accomplish an orientation without adversely affecting training.

6.13.2. Facility tours may require close coordination with public affairs and protocol. Air Force option time may be used at the discretion of the OG/CC. Tours will be on an as-available basis and will not displace scheduled training events.

6.13.3. OG/CC will ensure an Air Force representative meets, greets, accompanies, and conducts all tours. The contractor is not manned for or on contract to perform these duties. The contractor shall be responsible for providing an aircrew training device operator only.

6.14. Aircrew Evaluation:

6.14.1. General. The decision of the Air Force examiner as to the ability of the aircrew member to meet qualification levels as set forth in AFI 11-202, Volume 2, shall be final and will not be subject to question by the contractor. An AF Form 8 will be completed for all initial and recurring simulator evaluations. Less than qualified performance will be documented as Qualification Level 3.

6.14.1.1. Initial Qualification Evaluations. Prior to commencing Phase IB flight training in the KC-10, each crew member will be administered an evaluation (Q005 or Q006 as appropriate) in the applicable ATD; evaluation will be used to evaluate the effectiveness of contractor training as well as the capabilities and proficiency of the student. Each initial qualification (IQ) training device evaluation shall be conducted using either contractor-developed (and Air Force approved) mission scenarios or local unit standardization-evaluation (Stan/Eval) developed scenarios. **Exception:** Boom operators evaluations will be conducted using contractor developed (Air Force approved) scenarios. For unit developed profiles, the examiner must coordinate with the contractor, at a minimum, one day prior to the evaluation and ensure it is compatible with ATD software. **Exception:** If using a standard local profile, coordination must be accomplished prior to the simulator period. In the event of an unqualified rating (ATD or in-flight), a Qualification Level 3 AF Form 8 is issued to document the unqualified performance and the contractor is responsible for all retraining (ground-based) in those phases and sub-phases determined to be under the direct control of the contractor. A joint contractor and Air Force review board consisting of crew specialty representatives from Group level training, FTU (if an in-flight evaluation), Group and/or Squadron Stan/Eval and appropriate contractor personnel will review the aircrew member's performance and determine those phases of the ground based courses that require additional training to meet qualification levels.

6.14.1.2. Recurring Evaluations. Recurring ATD evaluations will be given using either contractor-developed refresher profiles, evaluation profiles, or Air Force examiner provided profiles. **Exception:** Boom operators evaluations will be conducted using contractor developed (Air Force approved) scenarios. For unit developed profiles, the examiner must coordinate with the contractor, at a minimum, one day prior to the evaluation and ensure it is compatible with ATD software. **Exception:** if using a standard local profile, coordination must be accomplished prior to the simulator period. In the event of an evaluation failure (in-flight or ATD), the appropriate ATD should be used to the maximum extent possible for retraining and rechecks. Usually, additional training and rechecks will be accomplished during a unit's scheduled ATT periods. In all cases, the unit must coordinate with the training contractor for ATD or instructor availability. In some cases, it may be necessary to cancel or reschedule training to accomplish the desired corrective actions.

Chapter 7

ARMS EVENT IDENTIFIERS AND COURSE DESCRIPTIONS

7.1. Description. ARMS event identifiers are standardized for mobility crewmembers. Event descriptions are listed by function.

Table 7.1. ARMS Identifiers.

Identifier	Group	Paragraph
A	Academic training	7.2
AA	USAF-Specified	7.3
AD	Airdrop	7.4 (N/A)
AS	Airland	7.5 (N/A)
B	Navigation & Individual Proficiency	7.6 (N/A)
C & E	Miscellaneous	7.7
F	Formation Training	7.8
G	Ground Training	7.9
LL	Aircrew Flight Equipment	7.10
M	Mission Specific	7.11
NV	NVG	7.12 (N/A)
N & P	Crew & Individual Proficiency	7.13
Q	Qualification & Certification	7.14
R	Air Refueling	7.15
S	Special Operations (SOAR)	7.16 (N/A)
SS	SERE	7.17
V	MPD	7.18
VL	Visual Low Level	7.19 (N/A)
VT	Visual Threat Recognition & Avoidance	7.20
VV	NVG	7.21 (N/A)
X	Unit Defined	7.22

7.2. Academic (A) Events. Academic course numbers, titles, and brief descriptions follow. More detailed course descriptions and information are available in the applicable contractor training course book and the KC-10 training syllabi.

7.2.1. A001–Initial Qualification Academic Course. Contractor course of instruction leading to initial qualification in the KC-10 that includes academic and ATD instruction. Flight training will not commence until all A001 requirements are satisfactorily completed.

7.2.2. A002–Pilot Check Out Course (PCO). Contractor course of instruction (KC-10 PCO) leading to aircraft commander qualification for MPD pilots in the KC-10 that includes academic and training device instruction.

7.2.3. A003–Senior Staff Officer Familiarization Course. Contractor course of instruction (KC-10 SSF) that provides training for authorized senior staff-level personnel requiring familiarization in KC-10 and associated training program. It is intended for senior officers who are unfamiliar with the KC-10 and its mission and does not involve any form of aircraft qualification. Senior staff-level personnel who previously accomplished a formal KC-10 pilot training course that resulted in a Form 8 qualification (i.e., KC-10 SOC, KC-10 PCO, KC-10 IAC, etc.) receive credit for the KC-10 SSF course. Regardless of the venue of KC-10 SSF course credit, KC-10 SSF course credit expires 39 months from the date of the member's last KC-10 aircraft flight.

7.2.4. A004–Senior Officer Course. Contractor course of instruction (KC-10 SOC) which provides basic qualification (academic and simulator training) for authorized senior staff-level personnel. Flight training will not commence until all A004 requirements are satisfactorily completed.

7.2.5. A010–Instructor Academic Training. Contractor course of instruction (KC-10 IAC, FIC, BIC) leading to instructor qualification in the KC-10 that includes academic and training device instruction. Formal flight training will not commence until all A010 requirements are satisfactorily completed.

7.2.6. A016–AFRC Reserve Associate Program Orientation Indoctrination. Course of instruction that includes concepts, policies, techniques, operating procedures, working relationships and other appropriate information to ensure both RegAF and AFRC associate personnel thoroughly understand the AFRC Associate Program. Instruction will be locally-developed by host wing and associate unit using applicable instructions and documents.

7.2.7. A017–Regulation, Directive Knowledge, and Use-Initial and Mission Qualification/Certification. Includes all publications, directives, and pamphlets students must utilize in operating KC-10 except for flight, AR, and performance manuals. At a minimum, student will demonstrate knowledge of publications listed in [Table 7.2](#) and [7.3](#) that apply to their specific crew position. Requirement consists of locating information requested by instructor and providing accurate interpretation. ACs, senior staff, and PCOs may accomplish event in conjunction with A018 (Aircraft Commander Responsibilities).

Table 7.2. Associated Directives (Initial/Requalification).

PUBLICATION	POSITION
AFI 11-2KC-10, Volume 1, <i>KC-10 Aircrew Training</i>	ALL
AFI 11-2KC-10, Volume 3, <i>KC-10 Operations Procedures</i>	ALL
AFI 11-202, Volume 1, <i>Aircrew Training</i>	ALL
AFI 11-202, Volume 2, <i>Aircrew Standardization/Evaluation Program</i>	ALL
AFI 11-202, Volume 3, <i>General Flight Rules</i>	ALL
AFI 11-207, <i>Combat Aircraft Delivery</i>	ALL
AFI 11-218, <i>Aircraft Operations and Movement on the Ground</i>	ALL

AFI 11-301, Volume 1, <i>Aircrew Flight Equipment (AFE) Program</i>	ALL
AFI 11-401, <i>Aviation Management</i>	ALL
AFI 13-207, <i>Preventing and Resisting Aircraft Piracy (Hijacking)</i> FOUO	ALL
AFI 34-246, <i>Air Force Lodging Program</i>	ALL
AFMAN 24-204(I), <i>Preparing Hazardous Materials for Military Air Shipments</i>	P,BO
AFJI 11-204, <i>Operational Procedures for Aircraft Carrying Hazardous Materials</i>	ALL
AFMAN 11-217, Volume 1, <i>Instrument Flight Procedures</i>	P
AFMAN 11-217, Volume 3, <i>Supplemental Flight Information</i>	P
AFTTP 3-3.KC-10, <i>Combat Aircraft Fundamentals, KC-10 (U)</i>	ALL
AMCI 11-207, <i>AMC Weapons and Tactics Program</i>	ALL
AMCI 11-208, <i>Tanker/Airlift Operations</i>	ALL
AMCI 24-101, Volume 9, <i>Air Terminal Operations Center</i>	P,BO
AMCI 24-101, Volume 11, <i>Cargo and Mail Policy</i>	P,BO
ATP 3.3.4.2, <i>Air Refueling</i> (Usually carried in Mission Kits)	P
ATP 3.3.4.2.5, <i>National Standards Related Document</i> (Usually carried in Mission Kits)	P
DoD 4500.54-M, <i>Foreign Clearance Manual (Electronic Foreign Clearance Guide, eFCG)</i>	ALL
Squadron Read File and FCIF	ALL
1C-10(K)A-1-2, Minimum Equipment List	ALL

Table 7.3. Associated Directives (Instructor Qualification).

PUBLICATION	POSITION
AFI 11-202, Volume 2, <i>Aircrew Standardization/Evaluation Program</i>	ALL
AFI 11-218, <i>Aircraft Operations and Movement on the Ground</i>	ALL
AFI 11-2KC-10, Volume 1, <i>KC-10 Aircrew Training</i>	ALL
AFI 11-2KC-10, Volume 3, <i>KC-10 Operations Procedures</i>	ALL
AFI 11-401, <i>Aviation Management</i>	ALL
Contractor Course Book (applicable course numbers)	ALL
KC-10 Flight Training Syllabus	ALL
NOTE: Instructor Upgrade. This area includes all publications, directives, and pamphlets instructor candidate must utilize and be knowledgeable of to perform KC-10 instructor duties. At a minimum, instructor candidates will demonstrate knowledge of the publications listed in Table 7.3 that apply to their specific crew position. This requirement consists of locating information requested by the instructor and providing an accurate interpretation.	

7.2.8. A018–Aircraft Commander Responsibilities. Pilots must receive a comprehensive briefing on their responsibilities to the mission and to the flight crew while performing AC

duties. This briefing will include, but not be limited to C2, chain of command, FCG, ICAO procedures, passenger handling, cargo handling, customs, Uniform Code of Military Justice (UCMJ), billeting, security, aircraft performance and limitations, crew rest, crew duty day, all volumes of AFI 11-2KC-10, and flight crew qualifications. Review of the KC-10 AC's duties and responsibilities will be accomplished as part of this event. Senior staff need only receive a briefing on those areas pertinent to their level of qualification.

7.2.9. A022—Two-Engine Ferry Training. Contractor course of academic and ATD instruction designed to train selected crew members (pilots and FEs) on procedures, techniques, aircraft preparation, performance, and crew coordination required to successfully complete KC-10 Two-Engine Ferry missions. Crew will consist of two instructor or evaluator pilots and one instructor or evaluator flight engineer. See AFI 11-2KC-10, Volume 2 for crew selection criteria.

7.2.10. A023—Two-Engine Ferry Certification Training. At a minimum, certification training will consist of the contractor course and reviewing the following items:

7.2.10.1. Command guidance on two-engine ferry operations (AFI 11-2KC-10, Volume 3)

7.2.10.2. Mission planning

7.2.10.3. Coordination of overflight

7.2.10.4. Aircraft preparation for ferry flight

7.2.10.5. T.O. 1C-10(K)A-1-4, *Two-Engine Ferry Operations*

7.2.11. A034—Requalification Course. Contractor course of instruction for requalification of pilots, FEs, and boom operators using an abbreviated version of the initial qualification course (A001). Flight training will not commence until all A034 requirements are satisfactorily completed. Administer when a specific course is not designated.

7.2.12. A044—Instructor Training Course Workbook. Must be completed prior to beginning KC-10 instructor courses (A010). This is a vital portion of the training program and must be completed prior to the course in order to achieve desired results.

7.3. U. S. Air Force Specified (AA) Events.

7.3.1. AA01—Qualification Evaluation. Administered in-flight according to AFI 11-202, Volume 2 and AFI 11-2KC-10, Volume 2 as supplemented. Required prior to unsupervised flight and required as a course completion item for qualification, requalification, and upgrade training as directed by this volume.

7.3.2. AA11—Instrument Evaluation. See AFI 11-2KC-10, Volume 2.

7.3.3. AA21—Combined Qualification and Instrument Evaluation. Administered according to AFI 11-202, Volume 2 and AFI 11-2KC-10, Volume 2 as supplemented. Required prior to unsupervised flight and required as a course completion item for qualification, requalification, and upgrade training as directed by this volume.

7.4. Airdrop (AD) Events. (N/A KC-10)

7.5. Airland (AS) Events. (N/A KC-10)

7.6. Navigation & Individual Proficiency (B) Events. (N/A KC-10)

7.7. Miscellaneous (C & E) Events.

7.7.1. **C040–Mobility Folder Review.** In accordance with AFI 10-403, Deployment Planning and Execution, the unit UDM is responsible to ensure all personnel meet AEF Tier 2A/B training requirements based on the individuals AEF bin assignment and UTC response times. The UDM will conduct a review of the mobility folder with the individual aircrew member to ensure AEF training requirements are being met. Failure to maintain AEF training requirements may restrict individuals ability to be placed on operational missions. Additional ancillary and mobility training requirements may be required for deployment to specific locations and will be identified in tasking orders. OPR is Unit Commander, Unit Deployment Manager, and individual crewmembers. See AFI 10-403, Deployment Planning and Execution. Frequency of this event will be annually or more frequently as determined by the Installation Deployment Plan (IDP).

7.7.1.1. UDMs may document AEF Tier 2A/B training in ARMS utilizing AMC approved IDs. The list of AMC approved ARMS IDs is located at: <https://eim.amc.af.mil/org/a3t/Public%20Docs/ARMS%20IDs/MAF%20Standard%20Arms%20IDs.xlsx>.

7.7.2. **E030–Passport.** Used to track passport expiration dates for crewmembers. It is AMC policy for all crewmembers to have a current Official US passport in order to comply with country entry requirements specified in the *Foreign Clearance Manual* (also referred to as *Electronic Foreign Clearance Guide, eFCG*). Input passport expiration date into ARMS database to track the actual date of expiration.

7.7.3. **E035–Secondary Passport.** As required for unit mission. Primary use is for visa application and to track secondary passport expiration dates for crewmembers.

7.8. Formation (F) Events. Pilots may log applicable events when performing pilot monitoring (PM), instructor, or evaluator duties.

7.8.1. **F020–Formation.** Follow procedures from AFTTP 3-3.KC-10, AR technical orders (T.O.) and AFI 11-2KC-10, Volume 3. At least 30 minutes of formation, to include the departure and join-up, should be planned and accomplished. Each aircraft commander must brief that portion of the mission they will lead. Accomplish P260 and P270 prior to and/or during each formation flight and plan on using EMCON 2 procedures throughout. Essential radio communications required for safety of flight, or failure to accomplish a P260 or P270, does not preclude crediting the event. Log only one F020 per sortie. Credit may be taken for all formation positions.

7.8.2. **F030–Large Formation.** Three or more aircraft, not necessarily the same type, in cell formation. Must be flown through completion of level-off or join-up, whichever occurs first. Follow procedures from AFTTP 3-3.KC-10, AR technical orders (T.O.) and AFI 11-2KC-10, Volume 3. All pilots must be squadron commander certified. Any position is creditable. Dual log with F020.

7.8.3. **F060–AR Formation.** 15 minutes of AR formation required (tanker or receiver). Consists of rendezvous and AR procedures prescribed by AR T.O.s, AFTTP 3-3.KC-10, and AFI 11-2KC-10, Volume 3. Credit may be taken if receiver aborts or if conducting KC-10

on KC-10 formation and AR, provided a sampling of AR formation positions are accomplished. Not creditable in lead position.

7.9. Ground Training (G) Events. This section describes specific ground training courses for KC-10 aircrews.

7.9.1. G002–Aircraft Marshaling Training and Examination. Ensures crew members understand proper marshaling procedures preventing aircraft taxi incidents.

7.9.1.1. MAJCOMs will ensure that all ground and all aircrew personnel who are or could be directly involved with aircraft movement are tested on their knowledge of marshaling signals, airport markings, lights, and signs. Test personnel within 30 days after reporting for duty following permanent change of station (N/A if tested at a formal school within the previous 6 months), or after their first assignment to duties requiring knowledge of marshaling signals and/or airport markings, lights, and signs. Review of AFI 11-218, and AFI 11-2KC-10, Volume 3 taxi restrictions/limitations, followed by an exam which may be incorporated into the crewmembers open book examination according to AFI 11-202, Volume 2. OPR is AMC/A3T; Unit is squadron.

7.9.2. G003–Flightline Security and Drivers Examination. Ensures crew members understand proper flightline driving and security procedures. Required prior to driving on the flightline. Training includes examination and certification to drive vehicles on the flightline according to local procedures and a briefing by the flightline constable covering the physical layout of restricted areas and owner or user responsibility for security reporting and detection. OPR is MAJCOM: AMC/A33/SFO; Unit is Chief, Airfield Management and Flightline Constable.

7.9.3. G007–Flight Records Review. See requirements in AFI 11-401 and AFI 11-421, *Aviation Resource Management*.

7.9.4. G025–Aircraft Field Trip. Gives initial qualification students the opportunity to locate and operate equipment, practice interior/exterior inspections, and get questions answered. Also, instructor candidate students will be given the opportunity to practice instructional techniques as they lead the trip under the supervision of qualified FTU instructors. A static aircraft should be used for the field trip. Training should be accomplished during FTU in-processing, as a group (i.e. all available crew positions) and will be completed prior to the first flight for initial qualification students. Areas to be covered include, but are not limited to, cabin door operation, alternate aircraft access locations, emergency equipment operation, manual operation of numerous fuel valves, taxi references, and APU operations to include emergency shutdown. In addition, initial qualification students should be guided through a typical pre-flight sequence covering procedures and techniques from arrival at the aircraft up through the completion of the “Cockpit Preparation” checklist. Normally accomplished in conjunction with LL03. OPR is Det 1 AMCAOS; Instruction by FTU instructors; Unit is squadron training section.

7.9.5. G060–Aircrew Tactics Continuation Training. Provides the crewmember with information necessary for effective and successful execution of the unit’s assigned employment mission. The course is based on information found in Air Force Tactics, Techniques, and Procedures (AFTTP) 3-1.General Planning, 3-1.Threat Guide, 3-1.KC-10/KC-135 and 3-3.KC-10 as well as any other documents pertaining to the execution of the

unit's mission. Additional information may be added to the course by the unit tactician, weapons officer (if applicable), or by the direction of the OG/CC. Units must complete a tactics assessment directed by the Chief of Tactics to complete G060. This assessment may consist of an instructor evaluated scenario, verbal evaluation, or open book evaluation. VT03 (VTRAT Refresher Training) may be completed as part of G060 for those individuals who previously accomplished VT01 (Initial VTRAT) training. VT03 training should be completed by either the VTRAT trainer or classified CBT accomplished on a SIPRNET computer. OPR is AMC/A3D. The courseware is posted on the AMC Combat Operations SIPRNET website. **(T-3)**

7.9.5.1. **Rated Instructor Required.** Graduate of the USAF Weapons Instructor Course (WIC), Combat Aircrew Tactics Course-Mobility Electronic Combat Officer's Course (CATS-MECOC), or BATS-trained instructors required. **Additional Information:** OG/CC may specify an alternate frequency for Tactics training, but not less than annual. CATS-MECOC students may credit G060 upon completion of course syllabus. May be conducted in conjunction with G070 as determined by agreement between local Intel and Tactics offices.

7.9.6. **G070–Aircrew Intelligence Training (AIT).** Provides crews with the fundamentals of threat knowledge, visual recognition, and collection and reporting requirements. Enhances crewmember's understanding of threats to unit assets with a direct impact on mission success and aircrew survival. Course will provide aircrew with details concerning how, when, and what to include in Mission Reports (MISREP), Ops-Intel interface, Request For Information (RFI), Escape and Evasion procedures, and the development and coordination of Evasion Plans of Action (EPA). See AFI 14-105, *Unit Intelligence Mission and Responsibilities* and AFI 14-105 AMC Supplement 1; (see 14-2MDS Volume 3 when published) for further guidance. The unit intelligence officer will administer a tailored AIT-related test to determine training objectives are met. May be conducted in conjunction with G060 as determined by agreement between local Intel and Tactics offices. OPR is AMC/A2.

7.9.7. **G080–Communications Procedures.** Provides aircrews recurring study in communications procedures. Enables aircrews to become proficient in the use of AMCH 33-1, *AMC Tanker Airlift Communications Handbook* and the *Flight Information Handbook (FIH)* while ensuring crew members possess a thorough knowledge of all communications and COMSEC requirements. Training includes code loading devices, equipment operation, Air Force Spectrum Interference Resolution (AFSIR), authentication and IFF SIF codes and procedures, Iridium Phone, HAVE QUICK, and SECURE VOICE, as applicable. Training involves COMSEC user requirements to include receiving, protecting, destroying, and accounting for COMSEC material according to AFI 33-201, Volume 2, *Communications Security (COMSEC) User Requirements*. See AFI 33-201, Volume 2 and AFI 11-244, Volume 1, *Instructions for Combat Crew Communications*.

7.9.7.1. OPR is MAJCOM: AMC/A3T/A3TK and CPSS/STSP; Unit is ATS contractor, Combat Crew Communications, COMSEC responsible officer (CRO), wing, operations group, and squadron training personnel; Instructors are: ATS instructors (if included in ATS contract), wing, operations group, and/or squadron training personnel, if instructor led. Training Aids and Media: AF Form 4168, *COMSEC Responsible Officer and User Training Checklist (LRA)*. Units may choose to complete COMSEC handling procedures by CBT or IBT format. Local procedures, updates, and the classified portion will be

briefed by the unit's Combat Crew Communications Flight (CCCF). Do not log until both parts are complete.

7.9.7.2. **Additional Information:** The Computer Based Training (CBT) version of G080 is a general overview of COMSEC handling procedures for aircrews. The CBT version does not cover all the requirements and local procedures. The CBT version will be used as an additional tool to enhance the training program. CCCF is required to cover all the other requirements.

7.9.8. **G090–Anti-Hijacking.** Provides crewmembers with training on USAF policy that includes war and peacetime requirements for arming USAF personnel and the use of deadly force. Training includes the use of force model, training aircrews armed to protect resources, and prevent/resist acts of aircraft piracy (hijacking). This training meets requirements in AFPD 16-8, *Arming of Aircrew, Mobility, and Oversea Personnel* and AFI 36-2654, *Combat Arms Program*, to include procedures in AFI 13-207, *Arming and Use of Force by Air Force Personnel*. This course will supplement training in G280, Small Arms/CCAT. This training can be found either through the AF portal or through the AMC ADLS at: https://amc.adls.af.mil/kc/main/kc_frame.asp?blnWhatsNew=True. OPR is MAJCOM, AMC/A3T and AMC/A7S; Unit is Squadron; See AFI 13-207.

7.9.9. **G100–Law of Armed Conflict (LOAC).** Ensures Air Force personnel understand the LOAC training as governed by AFGM 2015-10-01, Expeditionary Readiness. Airmen should refer to the AEF Online, Pre-deployment Training Information page (<https://aef.afpc.randolph.af.mil/Predeployment.aspx>) for Basic Airman Readiness and Basic Deployment Readiness training requirements and frequencies and accomplish those requirements, IAW the posted checklists. All commanders will ensure that assigned personnel are trained in the principles and rules of LOAC. For questions about LOAC or additional training beyond that which is provided on the ADLS website, contact the servicing legal office.

7.9.10. **G120–ISOPREP Review.** Review of isolated personnel report (ISOPREP). May be completed in conjunction with Aircrew Intelligence Training (AIT). All crewmembers will maintain a digital ISOPREP in Personnel Recovery Management System (PRMS), IAW Joint Personnel Recovery Agency (JRPCA) guidance. Once printed, the ISOPREP card is classified CONFIDENTIAL and must be safeguarded according to AFI 14-105. Frequency in cited references is annual review, while MAF aircrews standardize at prescribed rate in **Table 4.2** and at least every 180 days. During employment operations, personnel will review ISOPREP upon deployment, prior to the first mission of the day, and as often as necessary thereafter.

7.9.10.1. Complete review of DD Form 1833, *Isolated Personnel Report (ISOPREP)* as prescribed by JP 3-50, *Personnel Recovery* and CCMD PR directives. OPR is AMC/A2; Unit intelligence officer will maintain individual ISOPREP.

7.9.11. **G130–Instrument Refresher Course (IRC).** Ensures pilots possess sufficient knowledge of all applicable directives, procedures, and techniques to assure safe and professional instrument flying. Guidance for development of unit IRC programs, including topics and subject outlines, course length, instructor prerequisites, and methods of instruction is contained in AFMAN 11-210. IRC is accomplished according to AFI 11-202, Volume 2. However, the IRC test must be completed within the evaluation eligibility period. The following topics will also be addressed where applicable to unit mission:

- 7.9.11.1. Controlled flight into terrain (CFIT) (applicable to all)
- 7.9.11.2. VFR flight rules, maneuvers, and procedures
- 7.9.11.3. Operations under the Global Air Traffic Management (GATM) system:
- 7.9.11.4. Minimum Navigation Performance Specifications (MNPS) airspace and procedures
- 7.9.11.5. Reduced Vertical Separation Minimums (RVSM) airspace and procedures
- 7.9.11.6. Required Navigation Performance (RNP) airspace and procedures
- 7.9.11.7. Special Departure Procedures
- 7.9.11.8. Complete IRC CBT courseware or KC-10 IRC web-based program on the AMC Gateway site located at https://amc.adls.af.mil/kc/main/kc_frame.asp?blnWhatsNew=True. The Computer Based Training (CBT) must be complemented by 2-hour instructor based training (IBT). Complete IRC examination within the evaluation eligibility period according to AFI 11-202, Volume 2. See AFMAN 11-210. Course is available via CBT or web based program with a follow-on two-hour IBT. The IBT may source from the core IRC including "hot topics", IRC testing software and questions are available from Air Force Flight Standards Agency (AFFSA) SharePoint site. OPR is AMC/A3T; Unit is OG/CC; Curriculum Development by AFFSA.

7.9.12. G150–Approach Plate Familiarization Training. Provides flight engineers and boom operators with the knowledge and skills necessary to monitor the briefed departure and approach and advise the pilots of any deviations that would compromise safety. This training is designed to review terminal instrument procedures (TERPS). The training will include a breakdown of standard DoD and Jeppesen approach plates, explanation of aircraft navigation equipment, departure and terminal arrival procedures, instrument approach types, initial approach portion to the final approach portion and final approach procedures. Refresher training will be accomplished by completing the contractor developed Approach Plate Familiarization Training CBT (training and testing) at the appropriate KC-10 ATS learning center or via the KC-10 ATS website. If student passes the test, the contractor will provide student with documentation showing successful training completion. If the student does not pass the test, the student will re-accomplish the CBT lesson(s) until successful. **Note:** G150 is the minimum training required for Approach Plate Familiarization Training. Units are encouraged to expand or supplement this training as appropriate. OPR is Det 1, AMCAOS.

7.9.13. G160–Overwater Navigation Procedures. To provide instruction and review of procedures and restrictions for Atlantic and Pacific oceanic crossing and international airspace. The training will cover oceanic crossing requirements, contingencies, ACFP review, ETP, and RNP/RNAV. OPR: MAJCOM/AMC/A3T.

- 7.9.13.1. Training Aids: Overwater Navigation Procedures training located on the AMC/A3T SharePoint website (see **paragraph 1.15**).
- 7.9.13.2. Instructor: Instructor led G160 presentation/discussion required for mission certification ground training for all initial qualifications and aircraft commander upgrades.

7.9.14. **G180–Cargo and Passenger Handling Procedures.** Ensures KC-10 boom operators are knowledgeable in cargo planning and loading procedures and are able to properly handle passengers when they are transported on KC-10 aircraft. Course will teach proper and effective interaction with passengers. It will define acceptable and unacceptable behaviors, and will teach communication skills and problem solving when dealing with passengers. OPR is Det 1, AMCAOS; ATS Contractor is responsible for Curriculum Development; Unit is Squadron Training Section.

7.9.15. **G182–Hazardous Cargo (HZC).** (Mission Qualification/Certification and Continuation) Ensures KC-10 pilots and boom operators are knowledgeable in loading and transporting hazardous cargo. Provides instruction reviewing mobility aircrew hazardous materials procedures and AFMAN 24-204(I), *Preparing Hazardous Materials for Military Air Shipments*; and AFJI 11-204. The syllabus includes: Hazardous Classification, Aircraft Loading and Passenger Movement, Packaging, Tactical and Contingency Airlift, Marking and Labeling, Aircrew Responsibilities, and Certification. Complete ATS provided CBT lesson. OPR is Det 1, AMCAOS.

7.9.16. **G190–Aircraft Servicing.** Provides crew members with training for turning their aircraft (recovery, servicing, and launch) when maintenance support is not available. Initial training course consists of video training and an aircraft field trip with hands-on training for ground handling and servicing of the KC-10. FEs will be trained to proficiency on ground handling and servicing procedures and requirements when maintenance support is not available. Pilots and Boom Operators will be trained on their responsibilities for assisting the FE during aircraft turn operations. This field trip will normally be in conjunction with G025. Refresher training consists of Pilots, FEs, and boom operators viewing Det 1 AMCAOS video. Refresher credit may also be given for an aircraft field trip with hands-on training for ground handling and servicing of the KC-10. OPR is AMC/A3TK; Unit is FTU.

7.9.17. **G220–KC-10 Aircrew Systems Refresher CBTs.** Additional systems training designed to supplement training provided during each quarterly WST refresher. This contractor-developed course is divided into lessons consisting of study material and review exercises. Each lesson is assigned to a specific training quarter as outlined below. This ensures each lesson matches systems that will be highlighted during each quarterly WST refresher. Though not mandatory, squadrons are encouraged to expand on this training. Flight Engineers and Boom Operators must accomplish systems refresher CBTs for any missed quarter.

7.9.17.1. *January-March* (WST missions 1/2 or 9/10): hydraulics, air conditioning, pressurization, and flight instruments.

7.9.17.2. *April-June* (WST missions 3/4 or 11/12): flight controls, APU, and power plant.

7.9.17.3. *July-September* (WST missions 5/6 or 13/14): electrics, landing gear, and brakes.

7.9.17.4. *October-December* (WST missions 7/8 or 15/16): pneumatics, fuel, and anti-ice.

7.9.18. **G230–Crew Resource Management (CRM) Refresher Academics.** Reinforces initial CRM training through an academic review of the AMC common core subjects

(according to AFI 11-290, as supplemented) with specific emphasis on an annual refresher topic. Mission-specific continuation CRM training conducted according to AFI 11-290, as supplemented. Course provides crew members with training on how to successfully use all crew members to resolve problem situations. G230 is taught by ATS contractor using building block approach and will consist of a 2-hour briefing prior to the CRM mission in the WST (G240). G230 must be accomplished before G240-CRM MOST Sims. Although crew training is more effective with the boom operator present, the boom operator does not need to be present for crew to receive credit. Upon completion of Phase IA of Qualification or Instructor upgrade training, log G230 and G240 using evaluation date as date of accomplishment to establish currency date for subsequent training. OPR is AMC/A3T.

7.9.19. G231—Initial CRM. Introduces AMC common core subjects (according to AFI 11-290), as supplemented. If initial CRM is not accomplished at the formal school, it must be accomplished within 1 year of reporting to home station. Aircraft and crew-specific CRM training conducted according to AFI 11-290, as supplemented, provides new crew members with training on how to successfully use all crew members to resolve problem situations. Initial CRM is taught by ATS contractor using building block approach. G231 training will consist of 1-day workshop. Part of Phase IA training for all initial qualification crew members regardless of previous weapons system experience. Initial CRM is not required for requalification or upgrade courses. G231 satisfies G230 and G240. OPR is AMC/A3T.

7.9.20. G232—Instructor/Evaluator CRM. Training emphasizes the instructor's role by reinforcing CRM concepts during pre-briefs, WST missions, and post mission critiques. A one-time event taught by contractor during instructor upgrade.

7.9.21. G235—CNS/ATM Difference Course.

7.9.21.1. Purpose: One-time ground training for CNS/ATM difference certification.

7.9.21.2. Description: Computer Based Training (CBT) or Instructor Based Training (IBT) covering differences between legacy and CNS/ATM configured aircraft systems.

7.9.21.3. OPR: AMC/A3TK.

7.9.21.4. Training Media: CBT and IBT.

7.9.21.5. Instructor: CNS/ATM certified USAF and ATS Instructors.

7.9.21.6. Additional Information:

7.9.21.6.1. Pilots and Flight Engineers—Accomplish ATS CBT and accomplish one-period IBT led by a CNS/ATM ATS Instructor. Exception: SOC Pilots.

7.9.21.6.2. SOC Pilots—Accomplish a minimum one-period IBT session led by a CNS/ATM certified USAF Instructor.

7.9.22. G240—Crew Resource Management (CRM) Mission Oriented Simulator Training (MOST) Simulator. CRM mission-oriented simulator training (MOST) conducted according to AFI 11-290, as supplemented. Provides hands-on application of classroom-presented CRM refresher concepts through CRM WST training, addressing human factor issues in a realistic mission scenario. Training in the WST with a full crew complement, is desired. As a minimum two pilots must be present. G230 is a pre-requisite for G240 and is accomplished as part of the pre-briefs before the G240 CRM MOST Sims.

Upon completion of Phase IA of Qualification or Instructor upgrade training, log G230 and G240 using evaluation date as date of accomplishment to establish currency date for subsequent training. OPR is AMC/A3T.

7.9.22.1. **Additional Information:** The recommended minimum crew size for this course is an aircraft commander, MPD pilot, flight engineer and boom operator. If MAJCOMs authorize less than the recommended crew complement to attend refresher training, the affected units will ensure that the ATS contractor is able to support the missing crewmembers. Although crew training is more effective with the FE and boom operator present, the FE and boom operator does not need to be present for the crew to receive credit. For Pilots and Flight Engineers, G240 is accomplished as one of the required quarterly refreshers missions and will be dual logged with G261-G264.

7.9.23. **G250—Quarterly Proficiency Simulator.** Training profile may include CRM, formation, Proficiency Sortie (M010), flight procedures listed in AFMAN 11-217, corrective action training, etc. Units may develop processes to use this profile to satisfy pre-deployment training or flying training in **Table 4.4**. Cannot be dual logged with CRM MOST Simulator (G240), Refresher Simulators (G261-264) or an instrument/qualification evaluation. ATS contractor-administered simulator courses. OPR is AMC/A3TK.

7.9.24. **G261-G264—Refresher Simulator.** Specific training accomplished must be annotated on a MAR, (See **Chapter 4** for training events that can be accomplished or logged in ATDs). Contractor-administered simulator refresher courses (KC-10 PFREF) of instruction for aircraft commanders, pilots, and Flight Engineers. Consists of two WST periods per quarter (each period consist of: 2.0 hours pre-brief, 4.0 hour WST period, and 1.0 hour de-brief) emphasizing crew coordination, normal, abnormal, emergency procedures, aircraft performance, as well as aircraft systems. Det 1-approved quarterly refresher profiles will include, as a minimum, the abnormal and emergency procedures listed in **paragraph 7.9.23.1** and **7.9.23.2** below. Det 1 may substitute/delete single items on the list once per year to accommodate emphasis items or for accomplishing abnormal/emergency procedures requiring additional time. Depending on device availability, one FTD and one WST may be used in Det 1 approved profiles. Day two in the WST is still suitable for recurring simulator evaluations. Evaluation will consist of complete instrument evaluation (aircraft commander and pilot) and applicable portions of a qualification evaluation. Recurring simulator evaluations should be administered to two pilots and one FE as much as possible. This will minimize the number of evaluation periods required as well as minimize negative impacts on refresher training. Due to unusual or unforeseen circumstances, HQ AMC/A3TK may approve conversion to a single-day refresher profile, in coordination with the ATS contractor. Single day refresher profile shall be limited to highly experienced crewmembers, and may not be accomplished in consecutive quarters. Students in an approved single-day profile should not have accomplished a single-day refresher in the previous quarter. Single-day profiles are inadequate to accomplish all required training and accomplish an evaluation, therefore, single day periods will not be used to accomplish pilot or flight engineer evaluations. Must be accomplished with at least one FPK+ on the crew. ARC may substitute an FTL A FPQ for an AC, if needed.

7.9.24.1. **Aircraft Commanders and Pilots:**

7.9.24.1.1. Loss of all engines/generators

7.9.24.1.2. Engine fire or severe damage

7.9.24.1.3. Hydraulic system abnormal or emergency

7.9.24.1.4. Second engine fails on final approach (P185) (FP: PM duties only required)

7.9.24.1.5. Single-engine operation (P184) (FP: PM duties only required)

7.9.24.1.6. Engine-out approach and landing (P180)

7.9.24.1.7. Engine-out approach and missed approach (P170)

7.9.24.1.8. Simulated engine failure, engine failure after V1 (P040) or aborted takeoff (P183)

7.9.24.1.9. Performance Exercise

7.9.24.2. **Flight Engineers**, at minimum, will accomplish the areas listed above as well as the following:

7.9.24.2.1. Tanker (R170) and Receiver (R030) Heavyweight AR real time training using contractor-developed profile (not required every quarter). Flight Engineers may operate isolated to allow pilots to work on separate requirements at the same time. The FTD/WST is the primary method for accomplishing Flight Engineer training requirement for R030 and R170.

7.9.24.2.2. Aircraft Performance. One or more of the following performance areas will be selected by Det 1 AMCAOS and/or the ATS contractor SME for use during quarterly refresher training:

7.9.24.2.2.1. Compute AR performance data for slow speed and heavyweight missions

7.9.24.2.2.2. Obstacle clearance where runway cut-back is required in order to make the takeoff with a given gross weight (GW)

7.9.24.2.2.3. Correction Factor for Configuration Changes (CFCC)

7.9.24.2.2.4. VMCG limited GW

7.9.24.2.2.5. Reduced thrust takeoff with V1 equal to VMCG and assumed temperature must be checked and reduced

7.9.24.2.2.6. Takeoff GW exceeds tire speed limiting weight

7.9.24.2.2.7. V1 limited by VMBE

7.9.24.2.2.8. Windshear takeoff

7.9.24.2.2.9. Compute landing data (to include speeds and landing distance) for a landing at or near 436,000 GW with a wet runway and an abnormal flap or slat configuration

7.9.24.2.2.10. Compute the landing distance using performance manual charts for dual hydraulic system failure with dry and wet runway

7.9.24.2.2.11. Compute reference ground speed for landing with headwinds and

tailwinds

7.9.24.2.2.12. Compute time and fuel to alternate using fighter drag abort scenario

7.9.24.2.2.13. Compute time and fuel to alternate after completing a local flying mission and weather is below minimums at home base

7.9.24.2.2.14. Compute brake cooling time following an aborted takeoff

7.9.24.2.2.15. Using the brake cooling time chart, compute data to determine if it is safe to make subsequent takeoff following an aborted takeoff (i.e. brake's capability to stop aircraft if abort becomes necessary on second takeoff)

7.9.24.2.2.16. Compute brake energy

7.9.24.2.2.17. Compute driftdown performance data

7.9.24.2.2.18. Compute endurance speed for a given endurance scenario

7.9.24.2.2.19. Compute takeoff data whereby multiple obstacles are present along the flight path

7.9.24.2.2.20. Compute takeoff data for a light weight takeoff and set proper speeds on the TOLD card in a situation where V2 is higher than flap retract speed

7.9.24.2.2.21. Compute takeoff data with an RSC

7.9.25. G272-Boom Operator Cockpit Orientation CBT (Initial one-time event). To provide KC-10 Boom Operators with knowledge and familiarization of flightdeck instruments and gauges. The CBT provides basic knowledge, location and function of instruments and gauges to help provide better situational awareness during flightdeck operation. OPR is Det 1, AMCAOS; ATS Contractor is responsible for Curriculum Development. Dual log with G273.

7.9.26. G273-Boom Operator Cockpit Orientation CBT Refresher (Biennial). To provide KC-10 Boom Operators refresher training of flightdeck instruments and gauges. The CBT provides basic knowledge, location and function of instruments and gauges to help provide better situational awareness during flightdeck operation. OPR is Det 1, AMCAOS; ATS Contractor is responsible for Curriculum Development.

7.9.27. G280-Small Arms Training. Academics and firing range exercise; includes use of force, live fire, or firearms simulator training; simulator training may not be used for initial training. Trains crewmembers in successful engagement of enemy targets within the range and capabilities of their assigned weapon. Includes Rules of Engagement, arming, and the Use of Force ancillary training events according to AFI 36-2654 and AFI 31-117. Aircrews are categorized as Arming Group A for anti-hijacking/protecting resources purposes but are assigned 24 months for qualification/requalification purposes. IAW AFI 36-2654, "MAJCOMs may link Group A aircrew firearms training to an aircrew ground training cycle program." RegAF aircrew will follow requirement of [Table 4.2](#) of this AFI. AFRC requirements are found in AFI 36-2654. OPR is AMC/A7F; Unit is Security Forces (SF); Instructor is qualified SF small arms instructor.

7.9.28. **G290—Instrument Simulator.** Review and practice of instrument procedures is integrated into every KC-10 refresher WST (G261-G264).

7.9.29. **G292—Refresher BOT.** Contractor-administered refresher course (KC-10 BREF) utilizing BOT and CLT. Course is administered quarterly and consists of three 2.5-hour training periods, CBTs, and a Cargo Load Exercise. To receive credit for this event, the associated CBTs, a Cargo Load Exercise, and a minimum of 2 BOT periods must be accomplished. Planned 2 BOT period refreshers require prior AMC/A3TK approval. At the discretion of the evaluator, a single BOT period may be used to administer evaluations for FTL B and higher crewmembers. Unplanned BOT period cancellations (From 3 to 2 periods) due to weather or maintenance will qualify for G292 credit.

7.9.29.1. The following training areas will be accomplished during each quarterly BOT:

7.9.29.1.1. ARO Station Inspection

7.9.29.1.2. Preparation for Contact—Boom/Centerline Drogue/Wing AR Pod System

7.9.29.1.3. Direct receiver(s) to the contact position

7.9.29.1.4. Oral and visual communication

7.9.29.1.5. Boom Disconnect using AUTO or MANUAL retract (as req.)

7.9.29.1.6. Boom Disconnects using the IDS

7.9.29.1.7. Tanker AR Breakaway (practice emergency separation)

7.9.29.1.8. Nozzle Binding (req. Annually) (N/R AFRC)

7.9.29.1.9. Post Air Refueling—Boom/Centerline Drogue/Wing Pod Drogue

7.9.29.1.10. After Landing/Parking

7.9.29.1.11. Associated Abnormal/Emergency checklist procedures

7.9.29.1.12. APU training (start, shut down, and associated emergency and abnormal procedures) (required semi-annually)

7.9.29.1.13. Annually, as part of one of the refresher periods, all USAF Instructor/Evaluator Boom Operators (IBO, EB) will receive a "Nozzle Binding" scenario. This scenario requires two contract ATS instructors (primary instructor plus ATS instructor simulating a student). During this training the USAF IBO will occupy the IB instructor seat (N/A AFRC).

7.9.30. **G293—Additional Training Time (ATT).** Additional WST, FTD, and BOT training time used for other than quarterly refresher requirements (i.e. airfield qualification training, pilot proficiency activity, microburst training, aircrew evaluations). ATT training time does not include pre-briefing or post-mission debriefing time. Specific training accomplished must be annotated on a MAR or Dotsheet.

7.9.31. **G400—AIR Card User Training.**

7.9.31.1. Purpose. Ensure the AIR Card primary and alternate Agency Program Coordinators (APC) have a detailed knowledge and understanding of all policies, guidance and procedures related to the off-station procurement of aviation fuel and ground services, and understand the consequences of inappropriate actions.

7.9.31.2. Description. Complete initial AIR Card user training IAW AFI 11-253, *Managing Off-Station Purchases of Aviation Fuel and Ground Services*. The training is hosted on the Joint Knowledge Online website, <https://jkodirect.jten.mil> (course number J4OP-US1185 or under the title AIR Card User Training).

7.9.31.3. OPR: AF/A3OR

7.9.31.4. Additional Information. Complete initial training prior to using the Air Card; complete refresher training at least once every 3 years.

7.9.32. **G401—Instructor/Evaluator Calibration.** Provides all aircrew instructors and evaluators continuation training focused on calibration to AMC standards. Delivery will be via group discussion led by like crew position assigned to OGV, OST, or unit leadership (Sq/CC or DO). A presentation including scenarios for discussion will be provided by AMC/A3T. This event applies to Instructors and Evaluators only.

7.9.32.1. OPR: AMC/A3T

7.9.32.2. Training Media: Presentation provided by AMC/A3T

7.9.32.3. Instructor: OGV, OST, or unit leadership (Sq/CC or DO)

7.10. Aircrew Flight Equipment (AFE) Training (LL) Events. MAJCOMs may combine and/or supplement courses to fulfill their needs. Refer to AFI 11-301, Volume 1, *Aircrew Flight Equipment (AFE) Program*, for course descriptions.

7.10.1. **LL01—Aircrew Flight Equipment Familiarization.** To ensure all crewmembers are familiar with KC-10 aircrew flight equipment and are able to identify, locate, and utilize appropriate emergency equipment.

7.10.1.1. Description: One time event, per base assignment, conducted prior to the first flight at home station to familiarize aircrew members with local AFE availability, issue, use, pre-flight, and post-flight procedures. This training will be provided for subsequent re-assignments to the same base. Units may combine with Local Area Survival (SS01).

7.10.1.2. OPR: AMC/A3T

7.10.1.3. Unit: Squadron Aircrew Flight Equipment.

7.10.1.4. Curriculum Development: Each unit is responsible for tailoring training to meet unit needs.

7.10.1.5. Instructor: Qualified Aircrew Flight Equipment Instructor.

7.10.1.6. Training Aids: IBT with AFE training aids.

7.10.1.7. Additional Information: See AFI 11-301, Volume 1 and applicable MAJCOM guidance.

7.10.2. **LL03—Emergency Egress Training, Non-Ejection Seat.**

7.10.2.1. Description: Evaluates aircrew and passenger ability to demonstrate proficiency in air and ground emergency egress procedures. Stress the importance of aircrew coordination, aircrew and passenger responsibilities, and use of appropriate emergency egress equipment. Ensure aircrews are aware of their responsibilities for conducting safety and passenger briefings IAW AFI 11-202, Volume 3.

7.10.2.1.1. OPR: AMC/A3T

7.10.2.1.2. Unit: Squadron Aircrew Flight Equipment.

7.10.2.1.3. Curriculum Development: Each unit is responsible for tailoring training to meet unit needs.

7.10.2.1.4. Instructor: Instructor aircrew and or Aircrew Flight Equipment instructor.

7.10.2.1.5. Training Aids: Aircraft and IBT with AFE training aids.

7.10.2.1.6. Additional Information: See AFI 11-301, Volume 1 and applicable MAJCOM guidance.

7.10.3. LL04—Aircrew Chemical Defense Training (ACDT).

7.10.3.1. Description: An academic and equipment training session in which the aircrew member demonstrates and performs donning, doffing, and buddy dressing procedures using either the first or second generation Aircrew Chemical Defense Ensemble (ACDE) or Aircrew Eye/Respiratory Protection (AERP) equipment. This training also includes information on hazards and limitations of wearing the equipment properly and improperly, preflight procedures, aircraft integration, and parachute descent emergency procedures. Each aircrew will demonstrate procedures during their initial class; subsequent classes require a minimum of 10% of aircrew participants to dress out and demonstrate aircrew contamination control area decontamination processing procedures. Crewmembers who accomplish initial ACDT at a Technical Training Unit, Replacement Training Unit, or Formal Training Unit (FTU) will receive credit for initial training on arrival at their permanent duty station. Units will not combine this training with CBRNE training.

7.10.3.2. OPR: AMC/A3T.

7.10.3.3. Unit: Squadron Aircrew Flight Equipment.

7.10.3.4. Curriculum Development: Each unit is responsible for tailoring training to meet unit needs.

7.10.3.5. Instructor: Aircrew Flight Equipment instructor.

7.10.3.6. Training Aids: IBT with AFE training aids.

7.10.3.7. Additional Information: See AFI 11-301, Volume 1 and applicable MAJCOM guidance.

7.10.4. LL05—Egress Training with ACDE.

7.10.4.1. Description: Evaluates the aircrew's proficiency in the use of primary as well as secondary air and ground egress procedures while wearing ACDE. Training will stress the unique changes in procedures to include added difficulties aircrew would and could experience as a result of wearing ACDE. Accomplishing this training also satisfies the requirements in LL03 if all LL03 objectives are met.

7.10.4.2. OPR: AMC/A3T.

7.10.4.3. Unit: Squadron Aircrew Flight Equipment.

7.10.4.4. Curriculum Development: Each unit is responsible for tailoring training to meet unit needs.

7.10.4.5. Instructor: Instructor aircrew and or AFE instructor.

7.10.4.6. Training Aids: Aircraft and IBT with AFE training aids.

7.10.4.7. Additional Information: See AFI 11-301, Volume 1 and applicable MAJCOM guidance.

7.10.5. **LL06—Aircrew Flight Equipment Training (AFET)**

7.10.5.1. Description: An academic and equipment training event, in which aircrew members demonstrate their ability to locate, preflight, and use all aircrew and passenger AFE carried aboard unit aircraft or issued to aircrew members. This training includes the limitations and safety issues related to AFE. Additionally, training includes aircrew clothing items and information on hazards associated with improper wear and failure to use only authorized clothing and equipment items.

7.10.5.2. OPR: AMC/A3T

7.10.5.3. Unit: Squadron Aircrew Flight Equipment.

7.10.5.4. Curriculum Development: Each unit is responsible for tailoring training to meet unit needs.

7.10.5.5. Instructor: AFE instructor.

7.10.5.6. Training Aids: IBT with AFE training aids.

7.10.5.7. Additional Information: See AFI 11-301, Volume 1 and applicable MAJCOM guidance.

7.10.6. **LL07—Aircrew Flight Equipment (AFE) Fit Check**

7.10.6.1. Purpose: To ensure a comprehensive fit check of the individually fitted AFE.

7.10.6.2. Description. Ensure a comprehensive fit check of all AFE gear worn during flight by a qualified AFE technician, ie, Aircrew Eye/Respiratory Protection (AERP) equipment and ALEP. One time event per assignment or change in MDS.

7.10.6.3. OPR: AMC/A3T

7.10.6.4. Training Media: None. AFE technicians will use appropriate technical order references.

7.10.6.5. Instructor: Any qualified AFE technician.

7.10.6.6. Training Aids: None.

7.10.6.7. Additional Information: See AFI 11-301, Volume 1.

7.11. **Mission-Specific (M) Events.**

7.11.1. **M010—Proficiency Sortie.** Provides crewmembers specific guidance on items that should be accomplished during local training sorties that will emphasize core skills. See requirements listed below by crew position.

7.11.1.1. **Pilots:** As a minimum, a pilot proficiency sortie will consist of the following:

7.11.1.1.1. Three instrument approaches

7.11.1.1.2. Missed approach

7.11.1.1.3. VFR traffic pattern (weather permitting)

7.11.1.1.4. In addition, the following should be accomplished when available and applicable:

7.11.1.1.4.1. Circling approach

7.11.1.1.4.2. Holding pattern or procedure turn (to include entry)

7.11.1.1.5. Notes:

7.11.1.1.5.1. If flown in the aircraft, once the exercise commences, it should not be disrupted for any other type of training. A minimum of 1.5 flying hours (1 hour for AFRC) should be scheduled for this event. Must be accomplished with an IP (formal school instructors are exempt from the IP requirement). IPs should accomplish their M010 requirements with another IP on board the aircraft.

7.11.1.1.5.2. If accomplished in the WST, the M010 event does not require any specific time requirements as long as the requirements listed above are met. Pilots should focus on instrument proficiency with all engines/systems operating. This event is not intended to be logged while handling multiple aircraft malfunctions. If an M010 is accomplished in the WST, the students must be under the supervision of an IP or an ATS contractor pilot instructor.

7.11.1.1.5.3. Because holding is incorporated into the quarterly refresher simulator profile, M010 time need not be spent on holding unless further training is necessary.

7.11.1.1.5.4. If circumstances prevent completion on one sortie (aircraft or WST), credit may be taken after a second IP-supervised sortie, provided the combined activity fulfills the intent of this paragraph.

7.11.1.1.5.5. Instructors should tailor each M010 to the individual pilot's needs.

7.11.1.2. **Flight Engineers:** To credit a proficiency sortie, flight engineers must complete a full preflight inspection, perform the required pre-departure activities, and applicable panel duties and checklists for the type mission flown. Half of the semiannual requirements may be credited by performing a through-flight inspection versus a complete preflight inspection, provided all other duties associated with a proficiency sortie are accomplished. Flight Engineers should also complete manual TOLD. **Exception:** AFRC flight engineers may credit a sortie for missions flown where a preflight inspection was not possible (e.g., NERCC), and a preflight inspection was accomplished at another time. When a preflight is accomplished (not associated with or after flight), log a preflight event P361. When required, combine the preflight and through-flight proficiency sortie events by logging an M013. Logging a combined M013 will dual log to M010 and update the monthly proficiency sortie currency requirement.

7.11.1.3. **Boom Operators:** For FBs and MBs, must be accomplished under IB supervision. For IBs, should be accomplished under IB supervision. Complete pre-flight through engine shutdown checklist items and an AR contact or cargo load operations.

The intent of this event is to review and reinforce all boom operator responsibilities while under instructor supervision. **Note:** If circumstances prevent completion on one sortie, credit may be taken after a subsequent IB supervised sortie, provided the combined activity fulfills the intent of this event.

7.11.2. **M013–Flight Engineer Proficiency Sortie, Combined (ARC Only).** See M010 Flight Engineer requirement.

7.11.3. **M020–Unit Specific Training Sortie (UST).** Unit defined sortie to accomplish mission specific training events. The following is a suggested listing of events that can be used on an M020: any individual training event (approaches, landings, ARs); exercise training (RED FLAG, MAPLE FLAG); US Navy or Marine Corps drogue training; practice mobility training; night formations; large formations; night receivers and refueling; special mission tasking; special operations tasking; tactical navigation training; composite exercises; corrective training or identified weaknesses.

7.11.4. **M030–Oceanic Sortie.** To ensure crews are proficient in oceanic procedures and to familiarize crewmembers with evolving ATC and 618 AOC (TACC) procedures necessary for worldwide mobility taskings. Sortie includes primary aircrew logging primary, secondary, instructor, or evaluator time outside the 48 contiguous states of the CONUS associated with a procedural oceanic crossing as well as a review of oceanic procedures and overseas (non-FAA) airspace regulations. Airspace considerations (MNPS, RNAV/RNP, AP1/2/3/4, etc.) for the intended route of flight will also be covered as well as a review of associated documents (to include, but not limited to the MNPSA Manual, a sample NAT Track Message, North American Routes, and the North Atlantic European Routing System). Crewmembers must also review oceanic re-routing procedures. Discussions must emphasize critical CRM activities associated with a re-route, with a focus on updating the master oceanic log, the oceanic plotting chart and the FMS. Additionally, VVM and PM duties shall be thoroughly covered IAW AFI 11-2KC-10, Volume 3, and AFI 11-290 AMC SUP. OPR: AMC/A3T.

7.11.4.1. OG/CC may elect to substitute a CONUS sortie, coupled with an extensive review of oceanic navigation procedures, for the procedural oceanic obligation when aircraft requirements or crewmember availability is insufficient for accomplishing the oceanic sortie requirement. Consecutive CONUS sortie substitutions are not permitted.

7.11.4.2. OG/CC at OCONUS units may allow accomplishment of an off station sortie which includes a takeoff (P020) or landing (P190) at a location other than home station. In all cases, aircrew members are still required to review airspace and oceanic crossing procedures.

7.11.4.3. Crewmembers performing instructor or evaluator duties may log M030 provided appropriate airspace and oceanic procedures are instructed/evaluated during the sortie.

7.11.4.4. Two oceanic sorties may be credited if total mission time exceeds 30 flight hours (AFRC crewmembers may log two oceanic sorties if total mission time is less than 30 flight hours) and the pilot logs primary, secondary, instructor, or evaluator time during oceanic crossings.

7.11.4.5. Training Aids: Overwater Navigation Procedures (G160) training located on the AMC/A3T SharePoint (see **paragraph 1.15**).

7.11.5. **M050–Basic Tactical Sortie.** Det 1 AMCAOS will develop tactical scenarios for continuation refresher training. Mission must be flown using a tactical scenario (should use Intel, ATO/SPINS, Threats, Bulls Eye, etc.) and may be logged in the simulator, AOR, during a large force exercise, or continuation training missions on a non-interference basis. An M050 will include, as a minimum, three of the following events:

7.11.5.1. Tactical Departure (P062)

7.11.5.2. Tactical Arrival (P063)

7.11.5.3. Slide Exercise (P064)

7.11.5.4. Single-Ship Scram Exercise (P065)

7.11.5.5. Contingency Rejoin (P067)

7.11.5.6. Combat Descent (P068)

7.11.5.7. Defending Climb (P069)

7.11.5.8. If circumstances do not allow accomplishment of all events on one sortie they may be completed on another sortie (maximum two sorties). Pilots may log event when accomplishing PF or PM duties to maximize CRM reactions during the tactical scenario.

7.11.6. **M240–Two-Engine Ferry Continuation Training.** Contractor-administered academic and ATD instruction designed to provide selected crew members (Pilots and Flight Engineers) with two-engine ferry refresher training. At minimum, the course will cover procedures, techniques, tech order review, aircraft preparation, performance, and crew coordination. **Note:** This training supports formal Two-Engine Ferry Course.

7.11.7. **M260–Deployment Mission Planning.** Event includes mission planning duties and requirements for both fighter deployments and airlift operations. At minimum, student must be able to demonstrate knowledge of current operations functions and responsibilities, customs and agricultural requirements, and command control requirements (i.e. required coordination with Command and Control Centers, Air Terminal Operations Centers (ATOC), Contingency Response Wing (CRWs, TTFs, etc.)). Specifically, student must be able to accomplish the following:

7.11.7.1. Coordinate for billeting, diplomatic clearances, transportation, and meals.

7.11.7.2. Given various types of flight plans utilized by the KC-10 (CORONET-generated, 618 AOC (TACC)-generated, or locally produced), demonstrate knowledge of flight plan format and information by explaining what various headings and columns of numbers represent.

7.11.7.3. Given a computer flight plan, demonstrate how to verify accuracy of the flight plan fuel load to include receiver offload updates.

7.11.7.4. Demonstrate knowledge of mission planning documents, such as *Foreign Clearance Manual (eFCG)*, flight information publications (FLIP), airfield suitability information, altitude reservation (ALTRV), etc., by locating information requested by instructor and providing accurate interpretation.

7.11.7.5. Special emphasis will be placed on utilization of the IFR Supplement to determine airfield support capability, services (i.e. civilian vendors who have been contracted to provide fuel, etc.), weight bearing capability, runway or airfield restrictions, etc.

7.11.8. **M261–Airlift Deployment Operations.** Event trains crew members in duties and crew coordination required to effectively and safely operate the aircraft in the worldwide airlift role. Accomplishing this event should ensure that each individual can effectively perform specific tasks and responsibilities of their crew positions in a dynamic, real-world, operational environment involving the airlift system. Ideally, event would be accomplished on joint airborne air transportability training (JA/ATT), special assignment airlift missions (SA/AM) or AMC channel mission with multiple cargo legs; however, squadron commander will determine or define which airlift missions (CONUS and/or OCONUS) are suitable for mission certification training. May be dual-logged with M262 (Fighter Deployment Operations) when requirements of both events are accomplished on the same mission. At minimum, crew members will demonstrate knowledge of, or ability to perform, items listed below. Only minor omissions or deviations that would not compromise safety or detract from overall efficient conduct of the mission are permissible. All duties and responsibilities must be carried out according to Air Force and MAJCOM instructions, flight manuals, and AFI 11-2KC-10, Volume 3 (if applicable).

7.11.8.1. **Pilot:**

7.11.8.1.1. Required communications (position reports, change in flight plan, command and control (C2) monitoring requirements, operational reports, etc.)

7.11.8.1.2. Required C2 coordination, particularly with AMC agencies (i.e. coordination with 618 AOC (TACC), ATOCs, aerial port, or CRWs)

7.11.8.1.3. Awareness of cargo requirements and restrictions (i.e. manifest, hazardous cargo, human remains (HR), etc.)

7.11.8.1.4. Awareness of passenger requirements and restrictions (i.e. manifest, waivers, etc.)

7.11.8.1.5. Air defense identification zone (ADIZ) procedures and restrictions

7.11.8.1.6. International Civil Aviation Organization (ICAO) procedures and restrictions

7.11.8.1.7. Non-DOD (including Jeppesen) approaches and restrictions

7.11.8.1.8. Operations at airports without operating control towers (including UNICOM requirements)

7.11.8.2. **Flight Engineer:**

7.11.8.2.1. Coordinate with crew to establish maximum allowable cabin load (ACL) capability prior to or after arriving on station

7.11.8.2.2. Demonstrate proficiency in utilizing performance manual to compute MTOGW (Performance Knowledge and Use (P370))

7.11.8.2.3. Coordinate with Boom Operator prior to cargo loading and downloading on the following:

7.11.8.2.3.1. Tipping center of gravity (CG)

7.11.8.2.3.2. Restrictions on moving or redistributing fuel after the boom operator has computed tipping CG

7.11.8.2.3.3. Zone loading limitations

7.11.8.2.3.4. Fuel ballast requirements

7.11.8.2.3.5. Hazardous cargo awareness concerning type, location, and quantity of hazardous cargo, airfield restrictions, route of flight, etc.

7.11.8.2.3.6. Optimized CG at or near the aft limit for mission conditions (both for takeoff and in-flight) when practical

7.11.9. M262–Fighter Deployment Operations. Event trains students in duties and crew coordination required to effectively and safely operate aircraft during worldwide fighter deployments. Accomplishing this event should ensure each individual can effectively perform his or her crew positions specific tasks and responsibilities in a dynamic, worldwide operational environment involving fighter movements. The ideal mission to complete this requirement would be OCONUS fighter deployment or redeployment with multiple refueling legs; however, squadron commander will determine and define which missions (CONUS and/or OCONUS) are suitable for mission certification training. May be dual-logged with M261 (Airlift Deployment Operations) when requirements of both events are accomplished on the same mission. At a minimum, crew members will demonstrate knowledge or ability to perform the items listed below. Only minor omissions or deviations that would not compromise safety, or detract from overall efficient conduct of the mission, are permissible. All duties and responsibilities must be carried out according to Air Force and MAJCOM instructions, flight manuals, and AFI 11-2KC-10, Volume 3 (if applicable).

7.11.9.1. Pilot:

7.11.9.1.1. Required communications (position reports, change in flight plan, C2 monitoring requirements, operational reports, etc.)

7.11.9.1.2. Tracking mission progress (i.e. refueling points, abort or divert base requirements, etc.)

7.11.9.1.3. Required C2 coordination (i.e. coordination with 618 AOC (TACC), TTF, ACC/AOS, etc.)

7.11.9.1.4. Fuel management/planning (coordination with the Flight Engineer on fuel plan and progress, updates of weather, and divert base considerations)

7.11.9.1.5. ADIZ procedures and restrictions

7.11.9.1.6. ICAO procedures and restrictions

7.11.9.2. Flight Engineer:

7.11.9.2.1. Utilize computer flight plan (CFP) to determine AR points. Student must track AR points using flight management system (FMS) and coordinate refueling

times to ensure offloads are accomplished on schedule. Instructor will explain "bingo points" and stress importance of starting and ending each refueling on time.

7.11.9.2.2. Effectively utilize general navigation skills (N160), required FLIPs (or navigational charts if required), flight plan, fuel log, FMS (P376), and performance manual to accomplish actual or simulated in-flight re-planning of fuel requirements (tanker and fighter) to alternate or abort recovery airfield. Student must effectively coordinate with crew to accurately assess the situation for re-planning fuel requirements. Student must complete these tasks in sufficient time to prevent delays or unsuccessful completion of the mission. Fuel computation error cannot exceed tolerances listed in AFI 11-2KC-10, Volume 2. Instructor will stress importance of being prepared for mission changes and in-flight re-planning at any time.

7.11.9.2.3. Maintain fuel log and flight plan to accurately show fuel status and fuel consumption trends at all times.

7.11.9.2.4. Record appropriate data from each AR using unit approved worksheets.

7.12. NVG (NV) Events. (N/A KC-10)

7.13. Crew Proficiency (N) and Individual Proficiency (P) Events.

7.13.1. **N010–Tanker Rendezvous.** Does not include tanker buddy procedures. Accomplish in accordance with ATP 3.3.4.2/SRD. Do not credit unless actually accomplishing a rendezvous.

7.13.2. **N011–Rendezvous/AR EMCON 1.** AR procedures established to conduct initial qualification, requalification, and difference training for either tanker or receiver crews. Any and all emitters are authorized to ensure timely training, feedback, and maximum safety. Dual-log with type rendezvous accomplished and R010 or R060.

7.13.3. **N012–Rendezvous/AR EMCON 2 (Restricted Communications).** Radio silent refueling formation, except that rendezvous and initial portion of AR is conducted with two radio exchanges. Accomplish according to ATP 3.3.4.2/SRD. Dual log with type of rendezvous accomplished and R010 or R060.

7.13.4. **N013–Rendezvous/AR EMCON 3 (Communications Out).** Radio Silent rendezvous and AR. Using other emitters is authorized unless prohibited by supported operations, plans, etc. If valid receiver requirement exists, units may utilize this option after thorough coordination with receiver unit. Emission options 3 and 4 require extensive pre-coordination between tanker and receiver units. Coordination will normally take place during mission planning. Unless waived by squadron commander for mission priority reasons, crews will not use EMCON 3 or 4 unless coordination with receiver unit has been accomplished. Crew members must be squadron commander certified prior to accomplishing EMCON 3 or 4. Certification training requirements will be determined by squadron commander based on the individual's experience and unit mission except for the Boom operator. Boom operators with less than 200 hours of flight time as a boom operator must receive a minimum of one flight with an instructor stressing Radio Silent procedures, under EMCON 3 conditions, prior to squadron commander certification. Credit may be awarded on all operational support sorties when mission requirements are met. Dual-log with type of rendezvous accomplished R165 and R010 or R060 (see **paragraph 5.6.1**).

7.13.5. **N014–Rendezvous/AR EMCON 4** (Emission Out). No emitters will be used unless specifically authorized by the plan supported. This includes radios, radio navigation transmitters, radar, radio altimeters, IFF (Identification, Friend or Foe), exterior lighting, etc. Due to FAA identification requirements, this option will not be practiced during peacetime operations unless specifically addressed by tasking order (see **paragraph 5.6.1**).

7.13.6. **N015–Tanker Alternate Rendezvous**. Any rendezvous accomplished when primary means are not available or utilized. During formation tactics, limit credit to the tanker actually accomplishing rendezvous. Dual-credit with N010 and specific type rendezvous.

7.13.7. **N016–Tanker RV Rendezvous Overrun Procedures**. Accomplish according to ATP 3.3.4.2/SRD.

7.13.8. **N020–Tanker/Receiver RV Golf**. See ATP 3.3.4.2/SRD, formerly called Enroute Rendezvous. Creditable as tanker or receiver. Dual-log with N130 or N010.

7.13.9. **N030–Tanker RV Delta**. See ATP 3.3.4.2/SRD, formerly called Point Parallel Rendezvous. Tanker must conduct rendezvous to include maintaining offset, monitoring range to receiver, and initiating final turn. Dual-log with N010.

7.13.10. **N040–Tanker RV Alpha**. See ATP 3.3.4.2/SRD, formerly called Anchor Rendezvous. Dual-log with N010 and R060.

7.13.11. **N130–Receiver Rendezvous**. Accomplish in accordance with ATP 3.3.4.2/SRD.

7.13.12. **N135–Receiver Alternate Rendezvous**. Any rendezvous accomplished when primary means are not available or utilized. During formation tactics limit credit to receiver actually accomplishing rendezvous. Dual-log with N130.

7.13.13. **N136–Receiver Rendezvous Overrun Procedures**. Accomplished in accordance with ATP 3.3.4.2/SRD.

7.13.14. **N160–General Navigation**.

7.13.14.1. **Pilots:** Includes maintaining in-flight log and chart information, fixing, maintaining track, establishing reliable estimated times of arrival (ETA) and meeting control times.

7.13.14.2. **Flight Engineers:** Student will be able to compute required information to utilize FMS for in-flight fuel planning. At minimum, this will consist of:

7.13.14.2.1. Extract coordinates for new destination from FLIP documents and navigation charts. Computation errors in computing coordinates cannot exceed 10 nautical miles.

7.13.14.2.2. Compute distance between two points from a navigational chart. Computation errors cannot exceed 20 nautical miles per navigation leg.

7.13.14.2.3. Determine true heading between two points from a navigational chart. Computation errors must not exceed 5 degrees.

7.13.14.2.4. Extract required information from flight plans for mission planning and in-flight re-planning.

7.13.15. **P004–MPD Taxi.** Designed to increase left seat taxi opportunities for MPD Pilots without requiring an instructor pilot or the requirements of P005. MPD Pilots will dual log a P004 when accomplishing a P005. Event requires left seat taxi to/from parking and/or taxi to/from runway. P004 will be conducted at home stations or familiar locations (familiar locations to be defined by local OG/CC). Event includes pre-briefing by the MPD Pilot demonstrating knowledge of taxi references, hazards of engine jet blast, foreign object damage (FOD) precautions, proper taxi braking technique, speeds, power requirements, and marshaling procedures to the aircraft commander.

7.13.16. **P005–Taxi Exercise.** Pilot must accomplish 180-degree taxi turns in minimum turn radius and 90-degree left and right turns using techniques that would be effective on minimum width taxiways (see AFI 11-2KC-10, Volume 3). Exercise includes thorough instructor pre-briefing to include taxi references, hazards of engine jet blast, foreign object damage (FOD) precautions, proper taxi braking technique, speeds, power requirements, techniques for supervising taxi operations from the right seat, and AFI 11-218 requirements and marshaling procedures. Instructor supervision is required for this event. IPs should accomplish their P005 requirements with another IP onboard the aircraft. MPD Pilots will dual log a P004 when accomplishing a P005. For Flight Engineers and Boom Operators, event will be accomplished for familiarization purposes. In particular, the Boom Operator will become familiar with scanner duties and responsibilities that may be required when taxiing in tight or congested areas.

7.13.17. **P006–Airwork Exercise and In-flight Demonstrations.** These exercises and demonstrations are intended to acquaint flight crews with handling properties of the aircraft under normal and abnormal conditions. See AFI 11-2KC-10, Volume 3 and AFTTP 3-3.KC-10 for guidance on in-flight maneuvers. Abnormal configuration approaches will only be accomplished in the simulator.

7.13.18. **P007–Stick Shaker and Approach To Stall Demo.** Event will be accomplished in simulator only.

7.13.19. **P010–Takeoff, Initial.** The first takeoff following completion of the “Before Takeoff” or “Full Stop Taxi Back” checklist. **Exception:** Senior staff pilots (colonels and above) who require in-flight supervision and instructor pilots may log a P010 after accomplishing an initial take-off or touch-and-go. Dual log with P020.

7.13.20. **P011–Takeoff, Night.** In addition to the requirements of P010, the takeoff must be accomplished between the hours of official sunset and sunrise. Dual log with P010.

7.13.21. **P012–Takeoff, Flight Director Off.** Accomplish with flight director off. Dual log with P010 and P011, as appropriate.

7.13.22. **P015–Instrument Departure.** For Flight Engineers to recognize and announce deviations from briefed or published procedures for Instrument Departures. Should identify and recognize mandatory, minimum, and maximum altitudes. Ensures the FGS is programmed as briefed by the pilot to include changes in ATC clearances. The student should be able to identify the position of the aircraft during the appropriate departure procedure using available primary navigation aids.

7.13.23. **P016-Special Departure Procedures (SDP).** Contractor administered training during PIQ and ACIQ Phase 1A training that satisfies AFI11-202, Volume 3 certification requirement. OPR is AMC/A3TK.

7.13.24. **P018-PM Takeoff and Climb Duties.** Perform pilot monitoring (PM) takeoff duties according to aircraft flight manual from takeoff through aircraft clean-up and initial climb.

7.13.25. **P020-Takeoff.** Initial takeoff or takeoff following touch and go landing.

7.13.26. **P025-Takeoff and Departure.** Event includes all activity from completing “Before Takeoff” checklist until completing departure. Student will ensure the FGS (flight guidance system) is programmed as briefed in the “Before Takeoff” checklist to include changes in ATC clearances. Pilot must be notified of any discrepancies or malfunctions. Ensure required N1 is set prior to 80 knots and monitor engine instruments throughout departure. Engine limitations cannot be exceeded. Monitor all altitudes and headings being flown and ensure there are no deviations from ATC clearances and that sufficient terrain separation is maintained. Demonstrate ability to perform duties as prescribed in the flight manual and other governing directives. Omissions or deviations cannot compromise safety or detract from the overall efficient conduct of the mission.

7.13.27. **P028-Right Seat Takeoff.** Initial takeoff or takeoff following touch and go landing from the right seat.

7.13.28. **P029-Left Seat Takeoff.** Designed to track left seat opportunities for all pilots (to include aircraft commanders and higher). Initial takeoff or takeoff following touch and go landing from the left seat.

7.13.29. **P040-Simulated Engine Failure, Takeoff Continued.** Accomplish in simulator only.

7.13.30. **P061-VFR Overhead.** See AFTTP 3-3.KC-10 for techniques on the set-up and execution of this event and the common errors associated with the VFR Overhead Pattern.

7.13.31. **P062-Tactical Departure.** Event will only be trained in a WST and consists of a low altitude/high speed departure. May be accomplished on operational missions when directed or required. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against terminal area threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution and common errors associated with this event. See Basic Tactical Sortie (M050) event.

7.13.32. **P063-Tactical Arrival.** Event will be flown for training using a tactical scenario developed by local units. If arriving VFR, comply with all VFR guidance in AFI 11-202, Volume 3, FLIP GP and AP, FARs, and applicable host nation guidance. The purpose of this event can be found in AFTTP 3-1.KC-10/KC-135. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against terminal area threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution and common errors associated with this event. See Basic Tactical Sortie (M050) event. P063 may be logged upon accomplishment of either of two arrivals:

7.13.32.1. Random Shallow maneuver may be performed in the aircraft or WST. This option may be accomplished day or night on operational missions when directed or during operational or continuation training missions on a non-interference basis.

7.13.32.2. Low Altitude/High Speed arrival is restricted to a WST or on operational missions when directed.

7.13.33. **P064–Slide Exercise.** Accomplish this maneuver in tactical context single ship or in formation. Complete the event in a WST or aircraft. Pilot may log the event if accomplishing PF or PM duties. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against air-to-air threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution and common errors associated with this event. See Basic Tactical Sortie (M050) event.

7.13.34. **P065–Single-Ship Scram.** Accomplish this maneuver single ship only. Complete the event in a WST or aircraft during operational or continuation training missions on a non-interference basis. Pilot may log the event if accomplishing PF or PM duties. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against air-to-air threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution and common errors associated with this event. See Basic Tactical Sortie (M050) event.

7.13.35. **P066–Steep Turns.** Aircrews may use up to 45-degrees bank angle when accomplishing this event. Complete the event in Level C+ certified ATD or aircraft. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against air-to-air threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution, and common errors associated with this event.

7.13.36. **P067–Contingency Rejoin.** Rejoin with another aircraft using visual turning rejoin techniques or air refueling rejoin procedures. Pilot may log the event if accomplishing PF or PM duties. Event may be credited as the maneuvering aircraft for any rendezvous for air refueling purposes that is not a RV Delta or RV Golf. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against air-to-air threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution and common errors associated with this event. See Basic Tactical Sortie (M050) event.

7.13.37. **P068–Combat Descent.** Event will only be trained in a WST. May be accomplished on operational missions when directed or required. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against air-to-air threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution, and common errors associated with this event. See Basic Tactical Sortie (M050) event.

7.13.38. **P069–Defending Climb.** Event will only be trained in a WST to ensure the training encompasses flying the maneuver from a slow-speed air refueling scenario requiring aircraft configuration changes and or bank restrictions. A defending climb is an evasive maneuver flown in response to surface fire. See AFTTP 3-1.KC-10/KC-135 for tactical application of this event against surface-to-air threats. See AFTTP 3-3.KC-10 for techniques on the purpose, set-up, execution, and common errors associated with this event. See Basic Tactical Sortie (M050) event.

7.13.39. **P070–Instrument Approach.** For Flight Engineers, the ability to recognize and announce deviations from briefed or published procedures for approach, missed approach,

and landing phases of flight. Identifying and recognizing the following altitudes and navigation fixes: initial approach fix (IAF) altitude, final approach fix (FAF) and altitude, decision height (DH), minimum descent altitude (MDA), and missed approach point (MAP) using the appropriate approach plate. Ensure FGS is programmed as briefed by pilot to include changes in ATC clearances. The student should be able to identify the position of the aircraft during the appropriate approach procedure using available primary navigation aids. Dual-log with any instrument approach.

7.13.40. **P071–Holding Pattern.**

7.13.41. **P072–Penetration (Published).** Does not include en route descent.

7.13.42. **P073–En Route Descent and Penetration.**

7.13.43. **P074–Approach and Landing, Full Stop.** Event includes all activity from departing cruise altitude for initial penetration or letdown to completing descent, landing, and the “Parking-Engine Shutdown” checklist. Student must demonstrate ability to perform duties prescribed by flight manual and other governing directives. Omissions and deviations cannot affect safety of flight. Areas of emphasis are:

7.13.43.1. Computing required landing data specified by flight manual and applicable directives.

7.13.43.2. Using appropriate approach procedures book to verify Approach Briefing matches published procedures.

7.13.43.3. Recognizing and announcing deviations from briefed or published procedures for descent, approach, missed approach, and landing phases of flight. Identifying and recognizing the following altitudes and navigation fixes: initial approach fix (IAF) altitude, final approach fix (FAF) and altitude, decision height (DH), minimum descent altitude (MDA), and missed approach point (MAP) using the appropriate approach plate. Ensuring FGS is programmed as briefed by pilot to include changes in ATC clearances.

7.13.44. **P080–Instrument Approach (Auto and Coupled).** A published approach flown when the aircraft is controlled through manipulation of the flight guidance system by the PF.

7.13.44.1. Instrument approach events may be dual logged where appropriate. For instance, P100 may be dual logged with P101, P102, P103, and either P080 or P090, whichever is accomplished.

7.13.45. **P090–Instrument Approach (Manual).** A published approach flown when the aircraft is controlled by actual hands-on flying.

7.13.46. **P100–Precision Approach.**

7.13.47. **P101–Instrument Landing System (ILS) Approach.**

7.13.48. **P102–ILS.** Accomplish with flight director off and autopilot in any position other than command (CMD).

7.13.49. **P103–PAR Approach.**

7.13.50. **P110–Nonprecision Approach.**

- 7.13.51. **P111–VOR and TACAN Procedures.** Instrument approach, including problems in course interception, tracking, holding, and fix-to-fix navigation.
- 7.13.52. **P112–TACAN, VOR, and Localizer Approach.**
- 7.13.53. **P113–Air Surveillance Radar (ASR) Approach.**
- 7.13.54. **P115–Backcourse Localizer Approach.**
- 7.13.55. **P117–RNAV Approach.** Approach must be flown using certified approach from the FMS database.
- 7.13.56. **P130–Circling Approach.** Dual-log with type approach flown.
- 7.13.57. **P140–Visual Traffic Pattern.**
- 7.13.58. **P150–Missed Approach (Auto).** For initial or requalification training, this event will not be accomplished in-flight until thorough briefing has been conducted by an IP on anticipated pitch and power changes, especially at the lighter gross weights.
- 7.13.59. **P160–Missed Approach (Manual).** To be accomplished without autopilot assistance. Not to be dual logged with P150.
- 7.13.60. **P170–Approach and Go-Around (Simulated Engine-Out).** Accomplish in simulator only.
- 7.13.61. **P180–Approach and Landing (Simulated Engine-Out).** Accomplish in simulator only.
- 7.13.62. **P183–Aborted Takeoff.** Practice in simulator only.
- 7.13.63. **P184–Simulated Single-Engine Operation.** Accomplish in simulator only.
- 7.13.64. **P185–Simulated Second Engine Fails On Final Approach.** Accomplish in simulator only.
- 7.13.65. **P190–Landing.** Student pilots must be made aware of hazards and difficulty in accomplishing crosswind landings. If crosswind conditions exist during transition training, special emphasis will be placed in accomplishing maximum number of student landings during this period. If unable to accomplish landings with crosswind conditions, student pilots will be thoroughly and completely briefed on all procedures and techniques of crosswind landings by IP. Used to record total landings accomplished by an individual. All landings will be multiple-logged under this item.
- 7.13.66. **P192–Landing, Night.** All landings accomplished when logging “Primary Night Time” IAW AFI 11-401. Dual log with P190.
- 7.13.67. **P193–Landing, 50-Degree Flaps.**
- 7.13.68. **P196–Landing, Full Stop (Reverse Thrust).**
- 7.13.69. **P198–Landing, Right Seat.** Any landing (full stop or touch and go) accomplished from the right seat.
- 7.13.70. **P199–Landing, Left Seat.** Any landing (full stop or touch and go) accomplished from the left seat.

7.13.71. **P200–Touch-and-Go Landing.** Only current and qualified instructor pilots and squadron commander certified aircraft commanders will supervise touch-and-go landings. Dual log with P020, P190, P192, and P199 as applicable.

7.13.72. **P215–Landing Attitude Demo.** The purpose of this in flight exercise is to establish and maintain the landing attitude long enough to observe all visual cues so that consistent, correct landing attitude can be learned and to demonstrate the flying characteristics of the KC-10 while in the flare. Follow guidance in AFTTP 3-3 KC-10.

7.13.73. **P260–HAVE QUICK.** Training consists of properly configuring the radio for HAVE QUICK operation and making at least one transmission and reception using HAVE QUICK mode of operation with any source. When practical, rendezvous and refueling should be accomplished utilizing the HAVE QUICK mode of operation. The TOD should be updated from a ground station master clock when possible.

7.13.74. **P270–Secure Voice.** Training consists of properly loading SECURE VOICE code and making at least one transmission and reception using SECURE VOICE with like-equipped aircraft.

7.13.75. **P280–Aircrew Chemical Defense Task Qualification Training (ACDTQT).** An exercise emphasizing hands-on training, dressed out in partial chemical defense (CD) ensemble. Do not accomplish in conjunction with a formation takeoff. The purpose of the exercise is to enable crew members to become aware of their limitations while wearing the equipment. Complications of heat exhaustion, fatigue, hyperventilation, limited dexterity, and hampered communication may be experienced during the exercise. Observers must closely monitor crew member actions during the exercise. If a crew member experiences difficulties such as excessive thermal stress, hyperventilation, headaches, etc., and either the observer or crew member believes it is unsafe to continue, the equipment will be immediately removed.

7.13.75.1. The following aircrew CD items will be used:

7.13.75.1.1. MBU-19/P hood and mask assembly or MBU-13/P CBO mask w/ HGU-41/P hood

7.13.75.1.2. CQU-7/P blower assembly with filter canisters/batteries or CRU-80/P filter pack assembly w/filters

7.13.75.1.3. MXU-835 intercom assembly w/ battery

7.13.75.1.4. Required suspension straps

7.13.75.1.5. Glove set (cotton, butyl, Nomex)

7.13.75.2. ACDTQT should be accomplished in the WST/FTD for pilots, flight engineers, and boom operators or the BOT for boom operators. ATS instructors will observe the exercise and no restrictions apply on whom or how many crew members may wear the gear. If performed in the BOT, the boom operator will accomplish the Preparation for Contact checklist and a minimum of one boom contact. If performed in the aircraft, only one pilot will be dressed out at any time. The Flight Engineer and Boom Operator will not dress out simultaneously. Pilots will be supervised by either an instructor or experienced aircraft commander (determined by the squadron commander) in the other seat. A safety observer crew member will occupy the jump seat. Pilots will

don the gear and accomplish at least one takeoff, approach, and landing, and complete all crew position checklists associated with approach and landing. Boom Operators and Flight Engineers, supervised by crew members of like specialty, will wear the gear during takeoff, approach, and landing. Prior to being scheduled for this event, each aircrew member must have completed LL04.

7.13.76. **P290–Alert Start.** Event is intended to ensure crew members have thorough knowledge of Standby Force (Alert) procedures as well as understanding the many operational considerations for utilizing these procedures. Training will consist of:

7.13.76.1. Mission qualification/certification (MCT training). Individuals and their instructor will utilize discussion period in aircraft to review all aspects of flight manual procedures and various operational considerations. All crew positions will be represented. Scramble response is not required.

7.13.76.2. Flight manual procedures. Procedures and techniques used in Standby Force and Launch situations are the same as those used during normal operation of the aircraft except time element may be reduced. Safety of flight will not be sacrificed and every attempt to conform to normal procedures should be made if time permits. Crew members will follow current flight manual procedures. Unique aspects of standby force procedures that demand careful consideration are:

7.13.76.2.1. Aircraft acceptance, power off cocking procedures, scramble procedures, and uncocking

7.13.76.2.2. Starting engines with doors disarmed, ladder installed, and crew members responding, if warranted by response timing.

7.13.76.2.3. Checklist procedures

7.13.76.3. Operational considerations. Many scenarios may warrant using Standby Force (Alert) procedures: conventional and contingency, humanitarian assistance, aircraft evacuation, exercises, etc. In any scenario and at any location, the AC will ensure the entire crew receives complete guidance from the tasking agency (or as deemed appropriate in the absence of such agency). For local scenarios, review local base and wing operations series publications. At minimum, guidance will include:

7.13.76.3.1. Real or exercise scenario

7.13.76.3.2. Response timing required

7.13.76.3.3. Means of notification

7.13.76.3.4. Means of response

7.13.76.3.5. Aircraft security

7.13.76.3.6. Mission tasking, flight planning, and flight plan

7.13.76.3.7. Performance capabilities, limitations, and takeoff and landing data

7.13.76.3.8. Maintenance status and recurring inspections

7.13.77. **P300–Cargo Loading.** Event ensures Boom Operators are trained to and maintain proficiency in airlift procedures supporting worldwide cargo, contingency, unit moves, and

organic transportation operations. All Boom Operators accomplishing this event must have received crew rest IAW AFI 11-202, Volume 3. Event may be dual-logged by no more than two cargo-qualified booms (a third boom may log a cargo load if fulfilling the IB or EB role) on an AMC channel, SA/AM, JA/ATT, off-station training mission, opportune cargo load, or Dual-Role mission.

7.13.77.1. Responsibilities. Cargo qualified Boom Operators will work together to ensure all aspects of the cargo mission are completed. On each leg of the mission, one of the cargo-qualified Boom Operators will assume the role of Cargo Boom Operator (secondary Boom Operator) and be primarily responsible for all cargo and passenger operations. The Primary Boom Operator will assist the Cargo Boom Operator as well as perform the primary role. Secondary Cargo Boom Operators should coordinate all cargo onload/offload (aircraft tipping, maximum fuels, lateral unbalance, etc.) calculations with the primary Boom Operator to ensure accuracy.

7.13.77.2. Qualification. Boom Operators must be current and mission ready to perform cargo loading operations unsupervised.

7.13.77.3. Mission Certification Training (MCT). All qualification training must be supervised by a cargo-qualified instructor Boom Operator. Mission certification training is provided through a two-phased approach; Phase IIA and Phase IIB.

7.13.77.3.1. MCT Phase IIA, Academic Ground Cargo Load Training. Consists of AMC/A3TK approved Academic/Static Cargo Load training syllabus utilizing a combination of class room instruction, CBTs, and P302 cargo loads. Phase IIB shall not commence until Phase IIA has been successfully completed.

7.13.77.3.2. MCT Phase IIB, Flight Cargo Load Training. Consists of flight cargo load training utilizing a combination of P301 and P300 cargo missions.

7.13.77.4. Continuation Training. P300 may be used for currency for all Boom Operator FTLs. Off-station training mission missions planned to provide support agency training through multiple cargo uploads/downloads shall only be counted as a single cargo load under P300.

7.13.78. **P301-Flying Static Cargo Load.** Consists of P302 cargo loads loaded on an aircraft for flight (intended landing destination is either home station or alternate location). All Boom Operators accomplishing this event must have received crew rest IAW AFI 11-202, Volume 3. Event may be dual-logged by no more than two cargo-qualified Boom Operators (a third Boom Operator may log a cargo load if fulfilling the IB or EB role). Requirements of [paragraph 7.13.77.1](#) apply to P301 cargo loads.

7.13.78.1. Initial/Re-qualification Training. P301 may be used to complete MCT Phase IIB boom operator cargo training.

7.13.78.2. Continuation Training. Dual log with P300 upon completion of P301. P301 can be logged consecutively for currency as long as different AMC/A3TK approved cargo loads are utilized. Logging of P301 followed by a P302 or vice a verse is authorized as long as different AMC/A3TK approved cargo loads are utilized.

7.13.79. **P302-Ground Static Cargo Load.** Consists of cargo loads utilizing cargo from the OSS/OST developed, AMC/A3TK approved static cargo load program loaded on an aircraft

not assigned a flight mission. All Boom Operators accomplishing this event must have received crew rest IAW AFI 11-202, Volume 3. Event may be dual-logged by no more than two cargo-qualified Boom Operators (a third Boom Operator may log a cargo load if fulfilling the IB role). Loads must be verified and approved by the AMC/A3TK. OSS/OST shall not use the same static cargo load in consecutive quarters. OSS/OST will schedule all needed static load requirement. OSS/OST must coordinate with applicable support agencies during static cargo load planning/preparation.

7.13.79.1. OSS/OST will establish a minimum of 3 separate/distinct approved static loads consisting of the following items:

7.13.79.1.1. Minimum 6 pallets of cargo

7.13.79.1.2. 1-2 Hazardous items (may be simulated)

7.13.79.1.3. Netted (1 pallet with side net/top net and 1 pallet with side net/top straps)

7.13.79.1.4. 1 High profile pallet greater than 85 inches

7.13.79.1.5. 1 Heavy pallet greater than 6.5K lbs

7.13.79.1.6. 2 pallets with axles (for restraint/adjacent axle solutions) for 1 of the 3 load plans

7.13.79.1.7. TO 1C-10(K)A-9 section 5 item for 1 of the 3 load plans

7.13.79.1.8. All static load operations will be accomplished as if cargo were to be airlifted and must have all required cargo documentation, i.e. load plans, manifests, hazardous certificates, joint inspections, etc. All procedures through TO 1C-10(K)A-1, Boom Operator's BEFORE TAKEOFF checklist and final maximum fuel calculations must be completed to credit event.

7.13.79.2. Initial/Re-qualification Training. OSS/OST developed, AMC/A3TK approved cargo static load program may be used for initial/re-qualification MCT Phase IIA Boom Operator cargo training IAW KC-10 Cargo Load Training Syllabus. Initial/re-qualification Boom Operator students in Phase IIB cargo training may utilize P302 for refresher or remedial training during qualification as needed.

7.13.79.3. Continuation Training. FTL A/B/C may dual log P302 and P300 currency as long as the following criteria is met: P302 ground static currency loads will utilize AMC/A3TK approved cargo loads and comply with real world mission SOE timing through Cabin Report statement for logging of currency purposes (**Exception:** ATOC/Maintenance delays do not count against mission SOE timeline). To ensure continuity and continual Boom Operator growth, Flight level B and C individuals will have an instructor on board to log P302 events. Two P302 events will not be logged consecutively for currency. Logging of P301 followed by a P302 or vice a verse is authorized as long as different cargo loads are utilized.

7.13.80. **P310–Instructor and Evaluator Duties and Techniques.**

7.13.80.1. Instructor upgrade. At minimum, instructor-candidate will receive training in responsibilities for quality assurance of contractor-administered training programs. Instructor-candidates must demonstrate proficiency in all of the following areas:

- 7.13.80.1.1. Student briefing
- 7.13.80.1.2. Student critique
- 7.13.80.1.3. Training documentation
- 7.13.80.1.4. Effectively conveying knowledge of aircraft operation and systems to their student
- 7.13.80.1.5. Knowledge and use of the KC-10 training syllabi
- 7.13.80.1.6. Knowledge and use of AFI 11-2KC-10, Volumes 1 and 3
- 7.13.80.1.7. Teaching ground training courses
- 7.13.80.2. Examiner upgrade. Examiner candidate will receive training in the following areas:
 - 7.13.80.2.1. Examiner's responsibilities in quality assurance of contractor training
 - 7.13.80.2.2. Administrative functions
 - 7.13.80.2.3. Review of AFI 11-202, Volume 1 and 2, and AFI 11-2KC-10 (applicable volumes)
- 7.13.81. **P320–Supervision of Right Seat Takeoffs, Landings, Touch-and-Go Landings, and Receiver Air Refueling.** This event gives those students going through the PCO, ACIQ, or PRQ (aircraft commander) courses exposure to common mistakes made by inexperienced pilots.
- 7.13.82. **P322–Weight and Balance.** This event trains Flight Engineers to accomplish DD Form 365-4 when aircraft is operated with minimum crew (i.e. aircraft commander, pilot, and FE). Training will be limited to non-cargo mission scenario. Student must complete form according to all information required by the basic weight list and loading data manual. Minor discrepancies (without omission of required information) are permissible.
- 7.13.83. **P330–Preflight Proficiency.** Accomplish preflight up through the “Before Start” checklist at aircraft (includes interior and exterior inspection).
- 7.13.84. **P332–APU Start Procedures.** Event ensures Boom Operators maintain proficiency in APU starting procedures.
- 7.13.85. **P340–Briefing and Control of Passengers.** Event ensures Boom Operators are trained to properly load and care for passengers in-flight, ensure passengers are properly documented, and ensures boom operators are:
 - 7.13.85.1. Able to brief, assist, and safely evacuate passengers
 - 7.13.85.2. Able to handle in-flight emergencies and problems concerning passengers (rapid decompression, airsickness, heart attack, etc.)
 - 7.13.85.3. Familiar with the operation of aircraft emergency equipment to include:
 - 7.13.85.3.1. Fire extinguishers
 - 7.13.85.3.2. Fire protection equipment
 - 7.13.85.3.3. Normal and emergency oxygen equipment

7.13.85.3.4. Signaling devices

7.13.85.3.5. Overwater emergency equipment

7.13.85.4. Emergency egress equipment (ropes and slide rafts). Areas must include applicable flight manual and directive restrictions.

7.13.86. **P350–Main Cabin Door Procedures (Departure and Arrival).** This event includes door operation (for all crew positions), and installation/removal of portable ladder and briefing slide exit procedures (for Boom Operators). Proficiency is required in arming and disarming main cabin doors, to include position of girt bar, coordination with flight crew, and safety considerations while operating doors.

7.13.87. **P360–Mission Planning and Briefing.** For initial qualification, requalification, and upgrade training, all applicable phases of mission planning must be accomplished as prescribed by governing directives. Emphases will be placed on proficiency with the computer flight planning software, briefing procedures and techniques and ability to react to dynamic changes. Activity must be supervised by instructor of like specialty for each training sortie. For instructor upgrade, student will brief all phases of flight and maneuvers to be performed with emphasis on correct techniques, procedures, and safety. Pilot students should be expected to prepare a seat/activity plan to maximize student training.

7.13.88. **P361–Preflight, Cockpit Preparation, and Engine Start.** Student must demonstrate ability to perform preflight, cockpit preparation, and engine start procedures with no omissions or deviations that would detract from flight and ground safety or overall efficient conduct of the mission. Aircraft limitations must not be exceeded. Student must recognize and report all abnormal indications or maintenance discrepancies. Inspection must be accomplished in sufficient time to allow completion of pre-takeoff duties. Thorough understanding and use of aircraft forms must be demonstrated.

7.13.89. **P362–Pre-Takeoff.** Pre-takeoff applies from aircrew assembly time through the “Before Takeoff” checklist. Student must perform pre-takeoff duties prescribed by flight manual and other governing directives. Procedures required by flight manual, checklist, and applicable directives must be accomplished with no omission or deviation that would detract from overall efficient conduct of the mission. Student must demonstrate effective coordination with their crew and support personnel to ensure aircraft is MR by briefed engine start time. *Note:* Preflight proficiency (P330) will be graded separately.

7.13.90. **P363–Climb.** Event includes all activity from completing departure until level-off or stabilized cruise. Student will demonstrate ability to perform duties prescribed by flight manual and other governing directives. Omissions or deviations cannot compromise safety or detract from overall efficient conduct of the mission.

7.13.91. **P364–Cruise.** Event includes all activity not specifically covered in other areas of flight. Student must demonstrate proficiency in the following:

7.13.91.1. Procedures required by flight manual, checklist, and applicable directives must be accomplished with no omissions or deviations that would detract from overall efficient conduct of the mission.

7.13.91.2. In-flight data logs (structural assessment, engine monitoring, and flight plan and fuel log) must be completed and updated according to pertinent directives. Errors or omissions cannot detract from accuracy and effectiveness of the log.

7.13.91.3. For in-flight fuel re-planning, student must effectively utilize general navigation skills (N160), required FLIPs (or navigational charts if required), flight plan and fuel log, FMS (P371), and performance manual to accomplish actual or simulated in-flight re-planning of fuel requirements due to mission changes. Student must effectively coordinate with crew to accurately assess the situation for re-planning fuel requirements. Student must complete these tasks in sufficient time to prevent delays or unsuccessful completion of the mission. Fuel computation error cannot exceed tolerances in AFI 11-2KC-10, Volume 3. Instructor will stress importance of being prepared for mission changes and in-flight re-planning at any time.

7.13.92. **P365–Autopilot-off Cruise.** Accomplish any time during flight for a minimum of 15 minutes with autopilot disengaged. Do not credit during takeoff, departure, approach, or transition phase.

7.13.93. **P366–Checklist Procedures and Use.** Accomplish all checklists according to governing TOs.

7.13.94. **P367–Crew Coordination.** Instruct each crew member in techniques and procedures for close coordination with other crew positions according to flight manual and applicable instructions. Emphasize crew coordination during mission planning, preflight, and throughout each flight. Each crew member must understand the need for close crew coordination.

7.13.94.1. ACs must demonstrate ability to command crew in effective and efficient manner while performing their own duties. Pilots must accomplish duties in flight manual, assist AC as directed, and take command of crew in AC's absence.

7.13.94.2. Flight Engineer initial qualification and requalification include all phases of operation during which two or more crew members must coordinate information or actions. Student must coordinate effectively with other crew members and supporting agencies during all phases of the mission as required by flight manual, mission requirements, or governing directives incurring no more than minor delays, misunderstandings, or confusion. Student actions must not affect overall efficient conduct of mission. Areas of emphasis are:

7.13.94.2.1. Coordination with boom operator during aircraft preflight

7.13.94.2.2. Coordination with AC and support personnel to ensure aircraft is MR by briefed engine start time

7.13.94.2.3. Coordination with boom operator before flight concerning:

7.13.94.2.3.1. Zone loading restrictions (cargo missions only)

7.13.94.2.3.2. Fuel load distribution (identify fuel location for takeoff and ballast fuel requirements for cargo loading or unloading)

7.13.94.2.3.3. Aircraft zero fuel weight and zero fuel CG

7.13.94.2.4. Coordination with boom operator on aircraft emergencies and abnormalities

7.13.94.2.5. Coordination between student and crew during AR

7.13.94.3. Boom Operator initial qualification and requalification. Includes all phases of operations during which two or more crew members must coordinate information or actions. Student must coordinate effectively with other crew members and supporting agencies during all phases of the mission as required by flight manual, mission requirements, or governing directives, incurring no more than minor delays, misunderstandings, or confusion. Student's actions must not affect overall efficient conduct of the mission. Areas of emphasis are:

7.13.94.3.1. Coordination with the Flight Engineer during all phases of the mission that affect aircraft CG.

7.13.94.3.2. Coordination with other crew members concerning aircraft emergencies or abnormals.

7.13.94.3.3. Coordination with support agencies to ensure orderly flow during cargo operations.

7.13.94.3.4. Coordination with other mission boom operators to ensure they work together as team to complete all phases of each mission.

7.13.94.3.5. Coordination with and brief AC concerning hazardous cargo (proficiency in MCT).

7.13.95. **P368–Postflight.** Event covers all activity from completing the Parking Checklist through maintenance debriefing. Student will demonstrate ability to:

7.13.95.1. Accomplish all procedures required by flight manual and applicable directives with no omission or deviation that detracts from overall efficient conduct of the mission.

7.13.95.2. Complete all forms and logs, including AFTO Form 781A, *Maintenance Discrepancy and Work Document* and AFTO Form 781H, *Aerospace Vehicle Flight Status and Maintenance*, both prescribed by T.O. 00-20-1, and required maintenance debrief forms. Forms must be accomplished with no more than minor omissions or errors that did not affect accuracy and effectiveness of forms. AFTO Form 781A entries must contain sufficient data (to include in-flight troubleshooting) to facilitate maintenance troubleshooting the write-up.

7.13.95.3. Accomplish all post-mission duties if maintenance support is not available (G190 Aircraft Servicing).

7.13.96. **P370–Performance Knowledge and Use.**

7.13.96.1. Aircraft Commander and Pilot initial qualification and requalification. Student must verify accuracy of takeoff data computed by FE according to flight manual.

7.13.96.2. FE initial qualification and requalification. Student must correctly apply performance manual procedures and charts when computing data for aircraft operations. Data must not exceed tolerances in AFI 11-2KC-10, Volume 2. Sample problems will be used to determine student proficiency in performance areas not normally encountered during local training missions. At a minimum, the following areas will be covered:

7.13.96.2.1. Obstacle limited takeoff (maximum ACL)

- 7.13.96.2.2. Screen height
- 7.13.96.2.3. VMCG limited takeoff (maximum ACL)
- 7.13.96.2.4. Takeoff with contaminated runway (runway surface condition, RSC, maximum ACL)
- 7.13.96.2.5. Windshear takeoff
- 7.13.96.2.6. Derated takeoff (runway condition reading, RCR)
- 7.13.96.2.7. Takeoff data for normal, abnormal configurations
- 7.13.96.2.8. Special Departure Procedures (SDP)
- 7.13.96.2.9. Minimum Climb Gradient Computation of speeds for minimum maneuvering, holding or orbit, minimum AR speed, receiver overrun speed, and endurance or maximum endurance
- 7.13.96.2.10. Landing data for normal, abnormal configurations (light, medium, and heavy gross weights), and dual hydraulic failures
- 7.13.96.2.11. Driftdown
- 7.13.97. **P371–FMS Operation.** Student must demonstrate proficiency in FMS knowledge and procedures. Areas of emphasis are:
 - 7.13.97.1. Loading database, flight plans, refueling patterns, approaches and waypoints
 - 7.13.97.2. Performing routine functions throughout the sortie
 - 7.13.97.3. Recognizing and documenting malfunctions and malfunction codes
- 7.13.98. **P372–Fuel Management and Conservation.** Student Flight Engineers must accomplish fuel management, including transfer when applicable, with no more than minor deviations from procedures outlined by flight manual. T.O. 1C-10(K)-5 limitations cannot be exceeded. Pilots and FE students must demonstrate knowledge and practical application of fuel conservation techniques and procedures addressed in flight manual, performance manual, local operating instructions, and applicable directives to include Mission Index Flying (MIF) Pilots Performance Advisory System (PPAS) program requirements.
- 7.13.99. **P373–Equipment Operation.** Student must demonstrate proficiency in operating all applicable aircraft systems and equipment as prescribed by flight manual. Includes individual systems knowledge, general panel operation, analysis of equipment malfunctions, and use of proper corrective actions. This area does not include emergency or abnormal procedures.
- 7.13.100. **P374–Manual Throttle Operation.** Student will manually compute takeoff power from performance manual, manually set this in the "Max Limit window" on the N1 gauges, and demonstrate manually setting engine power (ATS OFF) during takeoff and climb. Throttles should not be adjusted except to prevent exceeding engine limitations. CL thrust should be recomputed every 5,000 feet pressure altitude for lapse rate temperature deviation.
- 7.13.101. **P375–Manual Pressurization.** Student will operate pressurization system in "manual" from takeoff through landing and must maintain cabin rate of climb acceptable for

crew and passenger comfort. Cabin altitude will be maintained according to altitude schedule placard on FE's upper panel. Student must demonstrate ability to prioritize cockpit duties to monitor and maintain manual control of pressurization system during flight from takeoff through landing.

7.13.102. **P377–Radar Operation.** Operation of radar according to T.O. procedures during all phases of flight. Emphasize effective use of radar for weather avoidance (during departure, en route, and recovery), maintaining formation position, use of BCN and MKR modes during rendezvous, detecting overruns during receiver and tanker rendezvous, and tilt control and vectoring techniques for initial closure after receiver rendezvous. Practice tilt adjustment techniques using radar for skin painting aircraft as well as calculating cloud heights.

7.13.103. **P378–Communications.** Student must demonstrate proficiency in the application of communications and interphone procedures required by flight manual and governing directives.

7.13.104. **P379–Iridium Satellite Phone.** Student must accomplish all required transmissions and monitoring procedures according to flight manual. Minor omissions, errors, or delays that do not detract from communication of the message or efficient conduct of the mission are permissible.

7.14. Qualification and Certification (Q) Events. To be credited, applicable examination or evaluation must be satisfactorily completed according to AFI 11-202, Volume 2.

7.14.1. **Q001–Open Book Qualification Examination.**

7.14.2. **Q002–Closed Book Qualification Examination.**

7.14.3. **Q003–Mission Evaluation.**

7.14.4. **Q005–ATD Evaluation (Qualification and Upgrade).** Administered in ATD (WST or BOT) according to AFI 11-202, Volume 2. Required as course completion item for qualification, requalification, and upgrade training in this volume. Does not qualify individual for unsupervised flight. Pilot evaluations must include all in-flight requirements of an AFI 11-202, Volume 2 instrument evaluation.

7.14.5. **Q006–Senior Staff Basic ATD Evaluation.**

7.14.6. **Q007–Senior Staff Basic Qualification Evaluation.**

7.14.7. **Q008–Instructor Evaluation.** Administered in-flight according to AFI 11-202, Volume 2 and AFI 11-2KC-10, Volume 2 as supplemented. Required as a course completion item for instructor upgrade training as directed by this volume.

7.14.8. **Q011–Formation Lead Certification.** Program intent is to certify Aircraft Commanders who possess significant experience in flying all aspects of unit formation missions and are specifically qualified to lead formations. Program should include the following items:

7.14.8.1. Minimum of four hours of self-study on formation procedures in AFI 11-2KC-10, Volume 3 and ATP 3.3.4.2/SRD, as well as additional study materials provided by the FTU (which may include: standardized techniques, safety reports, recent flight crew

information files (FCIF) related to formation, cross-flow information obtained from other tanker and receiver units, and materials provided by MAJCOM headquarters).

7.14.8.2. Closed-book examination administered by training section.

7.14.8.3. Minimum of three formation flights (two as lead) under supervision of an IP. At least one of the formation lead flights will be planned as a large formation (three or more aircraft). To the maximum extent possible, training should include tanker operations with heavy receivers and multiple fighter-type receivers and formation as receiver lead (where applicable). In addition, IMC and VMC wing-to-lead position change procedures will be demonstrated. IMC position change may be accomplished in the WST using existing tanker models.

7.14.8.4. Certification in writing by the squadron commander. Phase IB formation training is creditable for MCT formation lead certification if specifically mentioned on the final AF IMT 4025. Lack of formation lead certification does not preclude swapping positions on a two-ship training mission for the purpose of conducting receiver AR training. Formation lead certification is required for lead when two or more large (non-fighter) aircraft fly in formation during phases of flight other than refueling operations.

7.14.9. **Q015–Special Missions and Operations Certification.** Event will be used to document training and preparation for special missions and operations. Unit commanders will determine requirements for this event, missions to be certified using the event, and documentation requirements.

7.14.10. **Q017–ILS PRM Certification.** AFI 11-202, Volume 3 requires aircrews operating aircraft equipped with TCAS to receive training for operations at airports with ILS Precision Runway Monitoring (PRM) Approaches. The Sq/CC or designated representative will certify pilots upon completion of one-time training if training was not accomplished during FTU. When ILS PRM training is not completed at FTU, document certification via AF Form 4324 as "ILS PRM-Certified" with ARMS event identifier Q017, ILS PRM. Before operations at an airport with ILS PRM approaches capabilities, pilots will complete the following training and certification.

7.14.10.1. Training Program. Review ILS PRM requirements according to the Airman's Information Manual, Part 5-4-15. View FAA video, "ILS PRM Approach Information for Air Carrier Pilots" available for download. Complete appropriate training including viewing of the video at the FAA web site: http://www.faa.gov/training_testing/training/prm/.

7.14.11. **Q022–Receptacle Equipped Day Fighter Certification.**

7.14.11.1. Perform day boom air refueling contact training under instructor supervision with receptacle equipped fighters. Will not be accomplished in the BOT. Q022 training may be accomplished upon proficiency in R125. Must demonstrate proficiency in Q022 activity prior to progressing to Q023.

7.14.12. **Q023–Receptacle Equipped Night Fighter Certification.**

7.14.12.1. Perform night boom air refueling contact training under instructor supervision with receptacle equipped fighters. Contacts must be made with the aide of external air refueling lighting. Will not be accomplished in the BOT. Q023 training may be

accomplished upon proficiency in Q022 and R130. Must demonstrate Q022 and Q023 proficiency for certification.

7.14.13. **Q039–Two-Engine Ferry Qualification Certification.** Accomplish at direction of AMC/A3T/A3V.

7.14.14. **Q050–Aircraft Commander Touch-and-Go Landings.**

7.14.15. **Q051–Aircraft Commander Supervision of Touch-and-Go Landings.**

7.14.16. **Q052–Aircraft Commander Supervision of Receiver Air Refueling.**

7.14.17. **Q090–Flight Publications Check.**

7.14.18. **Q160–IRC Exam.**

7.14.19. **Q170–Flight Evaluation Folder Review.**

7.14.20. **Q180–Cargo Mission Evaluation.** Administered to Boom Operators according to AFI 11-202, Volume 2 and AFI 11-2KC-10, Volume 2 as supplemented. Required prior to unsupervised cargo loading operations. Locally developed and AMC/A3TK approved loads may be used on fly-away/off station training sorties to fulfill this requirement if approved by AMC/A3VK for flight levels A and B. Home station static cargo loads will not be used.

7.14.21. **Q150–CNS/ATM Certification.**

7.14.21.1. Description: One-time certification to certify aircrew in KC-10 CNS/ATM aircraft modifications.

7.14.21.2. OPR: AMC/A3TK.

7.14.21.3. Training Media: Aircraft and WST.

7.14.21.4. Instructor: USAF CNS/ATM certified instructors and ATS contractor instructors.

7.14.21.5. Additional Information:

7.14.21.5.1. Accomplish ATS CBT (G230) and ATS-led differences course. The sortie will include CRM skills.

7.14.22. **Q512–Flight Evaluator Certification.**

7.14.23. **Q544–Phoenix Banner, Silver and Copper Certification.** Prior to flying unsupervised on a PHOENIX BANNER, SILVER, or COPPER mission, aircrew members will complete the training program and be certified. Sq/CCs will identify their most highly qualified crewmembers for entry into certification training. Training will focus on the unique circumstances that differentiate this mission from other mobility missions. Document the certification via AF Form 4324. ARMS event identifier is Q544, Phoenix Banner, Silver and Copper Certification.

7.14.23.1. As a minimum, the Phoenix Banner training program will consist of an in-depth review of AFI 11-289, *Phoenix Banner, Silver, and Copper Operations*, discussion of tasking and execution agencies for Phoenix Banner missions, and how the aircrew will interface with these agencies. Furthermore, the program will address the personnel to coordinate with, in case of diversion or delay, including the presidential Advance Agent, US Secret Service, and HMX-1 representative. The goal of training is to educate

crewmembers on the requirements for these individuals/agencies and illustrate their ability to help accomplish the mission. Following the review, an open book examination of AFI 11-289, minimum passing score of 80 percent, corrected to 100 percent will be accomplished.

7.14.24. **Q580–Large Formation Certification.**

7.14.25. **Q583–MPD Receiver Air Refueling.**

7.14.26. **Q584–Aircraft Commander Right Seat Receiver Air Refueling.**

7.15. Air Refueling (R) Events.

7.15.1. R010–Receiver AAR.

7.15.1.1. Pilot Upgrade (ACIQ, PRQ, PCO and in-unit upgrade): Aircraft commander upgrade students must be able to establish contact under simulated conditions of radio silence, amplifier override (manual boom latching), pilot director lights out, and tanker autopilot-off. Students will demonstrate proficiency in day activity to an instructor prior to advancing to night activity (not applicable for instructor upgrade). Night activity should include practice in rendezvous, closure, and contacts until able to maintain contact for 5 minutes without disconnect. Toggles-engaged time does not apply during tanker autopilot-off operations.

7.15.1.2. Pilot upgrade (Instructor): Aircraft Commanders upgrading to instructor must be very familiar with, and able to communicate, the dynamic refueling environment. In addition to the requirements in the above paragraph, they must also be able to demonstrate the air refueling envelope.

7.15.1.3. Pilot Continuation Training: Aircraft Commanders should accomplish 10 minutes of toggles-engaged time. Toggles-engaged time does not apply during tanker autopilot-off refueling or during higher headquarters missions.

7.15.1.3.1. Receiver AAR (R010) logged in the WST should accomplish either 15 minutes of closures from pre-contact to contact, or a sustained contact of 5 minutes.

7.15.1.4. Flight Engineer Qualification: Student must demonstrate ability to perform duties prescribed by flight manual, ATP 3.3.4.2/SRD and other governing directives without omissions or deviations that would detract from overall safe and efficient conduct of the mission. Primary areas of responsibility are:

7.15.1.4.1. Fuel transfer and management

7.15.1.4.2. Checklist initiation and accomplishment

7.15.1.4.3. Crew coordination and monitoring rendezvous

7.15.1.5. Flight Engineer Continuation Training: Accomplishing FE duties prescribed by flight manual, ATP 3.3.4.2/SRD and other governing directives.

7.15.2. **R011–Receiver AAR, Indoctrination.** PIQ will demonstrate ability of holding astern safely, taking control of the aircraft to safely clear the tanker in emergency, and executing a breakaway maneuver. May be accomplished in the WST or aircraft.

7.15.3. **R012–Receiver AAR, Day.** (Dual-log with R010.)

7.15.4. **R013–Receiver AAR, Aircraft.** (Dual-log with R010.)

7.15.5. **R020–Receiver AAR, Night.** Refueling accomplished when tanker external lighting is required to define visual references. (Dual-log with R010.)

7.15.6. **R030–Receiver AAR, Heavyweight.** (Dual-log with R010.)

7.15.6.1. **Pilot:** Requires minimum onload of 10,000 pounds with an end refueling GW of 556,000 pounds or greater. Event need not be accomplished before initial qualification. However, event must be accomplished under direct IP supervision prior to unsupervised accomplishment. To maximize training, recommend event be accomplished behind KC-135. Initial training must be accomplished in the aircraft. To credit R030 in the aircraft, a minimum of 2 contacts, one for at least ten minutes, is required. If the closures, contacts, and disconnects are stable, 2 contacts may be combined for the ten minute “toggles-engaged” time.

7.15.6.1.1. Receiver AR, Heavyweight (R030) logged in the WST should accomplish either 15 minutes of closures from pre-contact to contact, or a sustained contact of 5 minutes.

7.15.6.2. **Flight Engineer:** Requires either the aircraft GW be equal to or greater than 556,000 pounds or the total of all body tank fuel and aircraft zero fuel weight must be equal to or greater than 414,000 pounds at end of refueling. The following further illustrates this guidance:

7.15.6.2.1. Qualification training. Instructor will evaluate student knowledge of receiver heavyweight mission planning, fuel management, ATP 3.3.4.2/SRD procedures, performance, and limitations. Objective is to ensure Phase IA heavyweight receiver training objectives were achieved and retained. If scheduling restrictions prevent accomplishment of event in flight, instructor may evaluate student proficiency by discussion, oral examination, or using sample problems or scenarios.

7.15.6.2.2. Continuation training. Event reinforces fuel management procedures, develops and refines fuel management techniques for reducing boom contact time, and reviews aircraft and performance limitations associated with heavyweight receiver AR. ATD will be the primary method for accomplishing FE training requirement for this event.

7.15.7. **R040–Receiver AAR Breakaway.** Initiated with receiver in the AR envelope. Aircraft Commanders and Pilots must demonstrate proficiency in executing breakaways. Flight engineers must demonstrate proficiency in flight engineer duties during a breakaway. This event includes emergency separations.

7.15.8. **R045–Receiver AAR, Heavyweight Breakaway.** Event will only be trained in a WST. Initiated while within the AR envelope and at weights above 556,000 lbs. Emphasis will be on smooth control inputs and awareness of flight characteristics at heavy weights. Dual log with R040. This event includes emergency separations.

7.15.9. **R050–Receiver AAR, Tanker Autopilot-Off.**

7.15.10. **R055–Receiver AAR, Anchor ARA.** (Dual-log with R010.)

7.15.10.1. Qualification Training (KC-10 IAC, ACIQ, PRQ, PCO and in-unit upgrade). Students must be able to establish and maintain contact. May be flown day or night; if flown at night, students must have demonstrated proficiency in day receiver AR (not applicable for instructor upgrade). Activity should include practice in rendezvous, closure, and contacts until able to maintain contact in a turn, preferably in an anchor area for 5 minutes without disconnect. Toggles-engaged time does not apply during tanker autopilot-off operations. May be accomplished during MCT training if availability, precludes accomplishment at the FTU. FTU will notify gaining squadron of the requirement. Initial training must be accomplished in the aircraft.

7.15.10.2. Continuation Training. Aircraft Commanders should accomplish 10 minutes of toggles-engaged time. Toggles-engaged time does not apply during tanker autopilot-off refueling or during higher headquarters missions.

7.15.10.2.1. Receiver AR, Anchor ARA (R055) logged in the WST should accomplish either 15 minutes of closures from pre-contact to contact, or a sustained contact of 5 minutes.

7.15.11. **R060–Tanker AAR.** Credit only one R060 for each receiver formation and AR control time (ARCT) refueled regardless of number of aircraft. 10-minute toggles-engaged time is desired. Pilots may receive credit for either PF or PM duties.

7.15.11.1. Flight Engineer Qualification. Student must demonstrate ability to perform duties prescribed by flight manual, ATP 3.3.4.2/SRD and other governing directives without omissions or deviations that would detract from overall efficient conduct of the mission. Primary areas of responsibility are:

7.15.11.1.1. Fuel transfer and management

7.15.11.1.2. Checklist initiation and accomplishment

7.15.11.1.3. Crew coordination and monitoring rendezvous

7.15.11.2. Flight Engineer Continuation Training. Accomplishing duties prescribed by flight manual, ATP 3.3.4.2/SRD and other governing directives (rendezvous through post AR checklist).

7.15.12. **R070–Tanker AAR Breakaway or Practice Emergency Separation.** Breakaway or emergency separation should be initiated with the receiver in the AR envelope. The Pilot, Flight Engineer, and Boom Operator must demonstrate proficiency in executing breakaway procedures.

7.15.13. **R080–Tanker AAR, Autopilot-Off.** All axis of the tanker autopilot must be disengaged and AR contacts should be practiced for a minimum of 10 minutes.

7.15.14. **R090–Slow Speed Tanker AAR.** Rendezvous and tanker AR with any aircraft (i.e. A-10, B-52, or C-130) that might require using minimum AR speed. If this AR is unavailable, a "Slow Speed Tanker Refueling Exercise" may be substituted (see AFTTP 3-3.KC-10). Each student will explain ATP 3.3.4.2/SRD procedures and limitations for aircraft that may require slow speed AR down to minimum AR speed (i.e. 1.2G cruise buffet onset, with additives). In addition, each student will compute minimum AR speed and maximum tanker GW for various KC-10 configurations and altitudes.

7.15.15. **R120–Contacts.** Total Number. For qualification, satisfactory progress in day contacts must be demonstrated prior to attempting radio silent or night contacts. If accomplished in the BOT, up to 50 percent of contacts may be logged under all environmental conditions and may be dual logged with R140 contacts.

7.15.16. **R125–Day Contacts.** For initial qualification or requalification, day proficiency must be demonstrated prior to attempting Radio Silent or Night Contacts. Dual log with R120.

7.15.17. **R130–Night Contacts.** Contacts made when the use of external lighting is required to aid in refueling. Dual log with R120.

7.15.18. **R140–Tanker Manual Contacts.** Prior to attempting tanker manual contacts, students must demonstrate knowledge of tanker manual operation (TMO) equipment and procedures. Dual log with R120.

7.15.19. **R150–Fighter Contacts.** Q022 and Q023 proficiency and certification required prior to accomplishing without instructor supervision. Log the actual number of contacts accomplished and dual log with R120. Do not dual log with R120 while completing Q022 and Q023 training events. Boom Operators will not log R150 until they have been certified on a 4324 for Q022 and Q023.

7.15.20. **R160–Radio Silent Breakaway.** Event is to be accomplished as a tanker for Boom Operators and as a receiver for pilots and flight engineers using radio silent procedures. No radio call will be made during accomplishment of breakaway unless it is needed due to actual emergency or system malfunction. This event may take place with the receiver in either the contact or pre-contact position. Should this event be scheduled as part of a radio silent AR, coordination can be done any time prior to the flight.

7.15.21. **R165–Radio Silent AR.** Refueling accomplished without any EMCON 1 or 2 required radio calls. Any type receiver may be used for training.

7.15.22. **R170–Tanker Heavyweight Offload.** Requires aircraft GW \geq 556,000 pounds or total of all body tank fuel and zero fuel weight \geq 414,000 pounds at start of refueling.

7.15.22.1. Qualification Training. Instructor will evaluate student knowledge of tanker heavyweight mission planning, fuel management, T.O. procedures, performance, and limitations. Objective is to ensure Phase IA heavyweight tanker training objectives were achieved and retained. If scheduling restrictions prevent accomplishing event in flight, instructor may evaluate student's proficiency by oral examination or using sample problems and scenarios.

7.15.22.2. Continuation Training. Primary purpose of event is to reinforce fuel management procedures and techniques and review aircraft performance limitations associated with heavyweight tanker AR. ATD will be primary method for accomplishing this event.

7.15.23. **R180–Radio Silent Visual Signals.** The preferred method for training pilots is to accomplish this item in the WST. Pilots must be able to recognize the signals and take appropriate action. Reference to checklist is permissible for all but "Breakaway" signal. Boom operators must use applicable boom signal and pilot director light coaching switches to direct receiver from pre-contact through post AR. Coordination between pilots and boom

operators prior to Radio Silent operation is mandatory. Boom operators may accomplish in BOT or aircraft during upgrade.

7.15.24. R190–Drogue System Operation.

7.15.24.1. Contractor Qualification Training. Utilizing BOT, boom operator will demonstrate procedures for deploying and rewinding AR drogue. Applicable emergency procedures for jettisoning drogue will be demonstrated.

7.15.24.2. In-Flight Training. Boom Operator will accomplish procedures for deploying and rewinding AR drogue.

7.15.24.3. Initial Qualification Training. Pilots and Flight Engineers will be briefed on all drogue procedures.

7.15.25. R195–WARP System Operation. All crew members are required to be familiar with the wing AR Pod system. Training will emphasize unique performance considerations, preflight procedures, system operation, and system malfunctions. Training will include an aircraft field trip. In addition, boom operators will demonstrate proficiency in operating WARP system in BOT or in flight by accomplishing checklist procedures for deploying and rewinding both wing-mounted drogues.

7.15.26. R200–AR Operations. Event is designed to provide student with knowledge of procedures, techniques, and crew coordination requirements of the Flight Engineer. Student will demonstrate knowledge of terminology, procedures, and Flight Engineer responsibilities for the following operations:

7.15.26.1. Buddy departure and join-up (vertical, horizontal separation, and inter-plane communications)

7.15.26.2. Formation (vertical, horizontal separation, and interplane communications)

7.15.26.3. AR formation (vertical, horizontal separation, and interplane communications)

7.15.26.4. RV Delta (altitude separation, receiver armament, turn range and offset computations)

7.15.26.5. RV Golf (timing, aircraft separation)

7.15.26.6. Rendezvous overrun (airspeed as a receiver and as a tanker)

7.15.26.7. Radio silent visual signals (location in the ATP 3.3.4.2/SRD and application)

7.15.26.8. Breakaway

7.15.26.9. Rendezvous, AR, and formation EMCON options

7.16. Sortie (S) Events.

7.16.1. S185–CNS/ATM Proficiency Sortie.

7.16.1.1. Purpose: Maintain aircrew proficiency aboard CNS/ATM configured aircraft or WST.

7.16.1.2. Description: A CNS/ATM Proficiency Sortie is required at least semi-annually for all Q150 Certified crewmembers. Crewmembers are authorized to maintain event currency in CNS/ATM configured aircraft or WST. Crewmembers non-current for this

event must demonstrate proficiency in a CNS/ATM configured aircraft or WST with an ATS or USAF Instructor in all delinquent items, will be placed on supervised training status, and will be declared NMR for unit missions requiring CNS/ATM aircraft-only; however, crewmembers will retain MR status, may fly unsupervised locally, and may deploy as legacy crewmembers. Further requirements are listed by crew position below.

7.16.1.2.1. OPR: AMC/A3TK.

7.16.1.2.2. Training Media: CNS/ATM configured aircraft or WST.

7.16.1.3. Instructor: Q150 certified USAF Instructor or Evaluator required only if pursuing certification. ATS Instructor may be used to regain currency (following a loss of CNS/ATM currency up to 6-months).

7.16.1.4. Additional Information: Dual log with G261-G264 if accomplishing initial/difference CNS/ATM WST profile.

7.16.1.4.1. Pilots: As a minimum, accomplish the following events in either the WST or aircraft as the PF: Preflight (P361), Takeoff (P020), Tanker Rendezvous (N010), Instrument Approach (P070), Missed Approach (P160), Landing (P190), and Post Flight (P368). If these items are not accomplished in the aircraft or WST, they should be discussed during the brief or debrief.

7.16.1.4.2. Flight Engineers: As a minimum, accomplish: Preflight (P361) and Postflight (P368).

7.17. Survival (SS) Events. AFI 16-1301 is the SERE parent regulation. In such cases where there is a conflict between this reference and the parent regulation, the parent regulation takes precedence. OPR is AMC/A3DT; Wing OPR is OSS/OSK. Courseware and guidance provided by AMC/A3DT (POC: MAJCOM SERE Functional Manager).

7.17.1. SS01–Local Area Survival Training (LAS). Identify environmental aspects that could affect an aircrew member in a local area survival scenario. Determine personnel recovery tactics, techniques and procedures applicable to local area flying operations. SS01 is a one-time requirement prior to first flight at every assignment. Personnel who PCS and then return for subsequent assignments must accomplish this training during each reassignment. This training will be provided for subsequent re-assignments to the same base. See AFI 16-1301 and applicable MAJCOM guidance.

7.17.2. SS02–Combat SERE Training (CST). Aircrew will demonstrate proficiency in TTP for survival and recovery under field conditions, while in a simulated combat environment using weapons system specific survival equipment. This training is designed to enforce learning objectives through hands-on experiential training. MAJCOMs will tailor training based on mission, type of aircraft, and level of risk. See AFI 16-1301 and AMC supplement.

7.17.2.1. **Additional Information:** This course must be taught by 1T0X1 SERE Specialists or other personnel trained IAW SERE training plans validated by the SERE MAJCOM Functional Manager and approved by the Career Field Manager (AF/A3OS).

7.17.3. SS03–Conduct After Capture (CAC). Training is mandatory for mobility personnel required to maintain currency in S-V80-A SERE TTPs. Mission Ready (MR)/Combat Mission Ready (CMR) and personnel assigned to combat-coded units will

receive CAC not to exceed 36 months between events. Must be completed prior to being awarded mission ready status. See AFI 16-1301 and MAJCOM supplements.

7.17.3.1. **Additional Information:** This course be taught by 1T0X1 SERE Specialists or other personnel trained IAW SERE training plans validated by the SERE MAJCOM Functional Manager and approved by the Career Field Manager (AF/A3OS).

7.17.4. **SS05–Water Survival Training (WST).** Aircrew will demonstrate proficiency in TTP for survival and recovery from a water environment using weapons system specific survival equipment. This training should be conducted in natural waters (pond, lake, or ocean) or an environmental pool if logistically possible. Training in swimming pools is authorized if overall training objectives are not compromised. WST will utilize the demonstration and performance method of instruction. MAJCOMs will tailor training based on mission, type of aircraft, and level of risk. Refer to AFI 16-301 and AMC supplement for further information.

7.17.5. **SS07–Contingency SERE Indoctrination (CSI).** Combatant Command-directed training activity, designed to prepare HRI personnel deploying to a specific theater of operations or contingency. CSI is also referred to as HRI, and is usually conducted by SERE Specialists, or CCMD certified personnel. Parent regulation is either the CCMD theater entry requirement, or the *Foreign Clearance Manual (eFCG)*, depending on the CCMD.

7.17.6. **SS19–Evasion Conduct After Capture (ECAC).** Provides post-egress evasion and conduct after capture procedure training for Flight Surgeons, AE aircrew members, and other designated personnel. Air Force equivalent course is **S-V88-AL**. Not applicable for Pilots, Flight Engineers, or Boom Operators.

7.17.7. **SS20–Combat SERE Training, Wartime Level C.** Air Force equivalent course is **S-V80-A (Initial)**. Refer to AFI 16-1301.

7.17.8. **SS32–Water Survival Training, Non-Parachuting.**

7.18. MPD (V) Events. See [Chapter 5](#) for information.

7.18.1. **V280–MPD Phase I.**

7.18.2. **V281–MPD Phase II.**

7.18.3. **V282– AMC Orientation/GRACC.**

7.19. Visual Low Level (VL) Events. (N/A KC-10).

7.20. Visual Threat Recognition & Avoidance (VT) Events. See AFI 14-103, *Threat Recognition Training Materials Production Program* and AFI 14-105.

7.20.1. **VT01–Initial VTRAT Training.** A course of instruction consisting of a sequence of lessons that exposes aircrew members to threat recognition and associated mission considerations in a VTRAT trainer device. Dual log with VT03 for ARMS tracking purposes. OPR is AMC/A3D, A3T; courseware and guidance provided by ATS Contractor.

7.20.1.1. **Additional Information:** One time event. Prior MWS Initial VTRAT does not satisfy the requirement of VT01. Prior MWS crew members must attend VT01 for the KC-10. Recurring threat identification training will be accomplished by VT03.

7.20.2. **VT03–VTRAT Refresher Training.** Ensures aircrews are trained to recognize tactical environment aircraft threats. Complete using the VTRAT trainer device, Classified CBT (available on CD and accomplished on a SIPRNet computer), or utilizing an alternate media approved/authorized by AMC/A3D. VTRAT is available at both KC-10 training sites; advance scheduling notice is required. VT03 may be completed in conjunction with G060. OPR is AMC/A3D; instruction provided by Unit Tactics.

7.21. NVG (VV) Events. (N/A KC-10)

7.22. Unit Defined “X” Events. These identifiers should be used if units choose to track the associated events and items in ARMS. Define events in the local supplement to this AFI. OG/CCs will review all “X” events for relevancy to the unit’s mission during the TRP. This review will be documented in the TRP minutes.

JOHN W. RAYMOND, Lt Gen, USAF
Deputy Chief of Staff, Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

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AF Form 4022, *Aircrew Training Folder*

AF Form 4023, *Aircrew Training Progress Report*

AF Form 4024, *Aircrew Training Accomplishment Report*

AF Form 4025, *Aircrew Summary/Closeout Report*

AF Form 4031, *CRM Skills Criteria Training/Evaluation*

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AF Form 4324, *Aircraft Assignment/Aircrew Qualification Worksheet*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

AFTO Form 781H, *Aerospace Vehicle Flight Status and Maintenance*

DD Form 365-4, *Weight and Balance Clearance Form F - Transport/Tactical*
DD Form 1833, *Isolated Personnel Report (ISOPREP)*

Abbreviations and Acronyms

A—Annual

A3T—Chief, Aircrew Operations and Training

AC—Aircraft Commander

ACDE—Aircrew Chemical Defense Ensemble

ACDT—Aircrew Chemical Defense Training

ACDTQT—Aircrew Chemical Defense Task Qualification Training

ACIQ—Aircraft Commander Initial Qualification (previous MWS Aircraft Commanders or FAIP/OSA Aircraft Commanders), aka PTX-1

ADS—Automatic Dependent Surveillance

ADSC—Active Duty Service Commitment

AE—Aeromedical Evacuation

AEB—Airman Evaluation Board

AEF—Air Expeditionary Force

AETC—Air Education and Training Command

AF—Air Force

AFB—Air Force Base

AFC—Aircrew Fundamentals Course

AFCESA—Air Force Civil Engineering Support Agency

AFE—Aircrew Flight Equipment

AFEF—Aircrew Flight Equipment Familiarization

AFFSA—Air Force Flight Standards Agency

AFI—Air Force Instruction

AFJI—Air Force Joint Instruction

AFMAN—Air Force Manual

AFMSS—Air Force Mission Support System

AFOSH—Air Force Occupational Safety and Health

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFSC—Air Force Specialty Code

AFTO—Air Force Technical Order
AFTTP—Air Force Tactics, Techniques, and Procedures
AGL—Above Ground Level
AIT—Aircrew Intelligence Training
ALEP—Aircrew Laser Eye Protection
AMC—Air Mobility Command
AMCAOS—Air Mobility Command Auxiliary Operational Squadron
AMW—Air Mobility Wing
ANG—Air National Guard
AOC—Air Operations Center
AP—Auto Pilot
APU—Auxiliary Power Unit
AQP—Airport Qualification Program
AR—Air Refueling
ARA—Air Refueling Area
ARC—Air Reserve Component (ANG and AFRC)
ARCP—AR Control Point
ARCT—AR Control Time
ARIP—AR Initial Point
ARMS—Aviation Resource Management System
ASEV—Aircrew Standardization/Evaluation Visit
ASR—Airport Surveillance Radar
ASRR—Airfield Suitability and Restrictions Report
AST—Aircrew System Trainer
AT—Academic Training
ATC—Air Traffic Control
ATD—Aircrew Training Device
ATOC—Air Terminal Operations Center
ATP—Allied Tactical Publication
ATS—Aircrew Training System
B—Biennial
BAQ—Basic Aircraft Qualification/Qualified

BBQ—Basic Boom Operator Qualification
BIC—Boom Operator Instructor Course
BMC—Basic Mission Capable
BO—Boom Operator
BOT—Boom Operator Trainer
C—Cyclical (17-Month Qualification Evaluation Cycle)
CAC—Conduct After Capture
CATM—Combined Arms Training and Maintenance
CBRNE—Chemical, Biological, Radiological, Nuclear and High Yield Explosive
CBT—Computer-Based Training
CC—Commander or appropriate AFRC/ANG Operations Supervisor
CCAT—Cabin Combat Arms Training
CCE—Contract Compliance Evaluations
CCMD—Combatant Command
CCP—Command and Control Procedures
CEA—Career Enlisted Aviator
CEA CoE—Career Enlisted Aviator Center of Excellence, Lackland AFB, TX
CFIT—Controlled Flight Into Terrain
CLT—Cargo Loading Trainer
CNS/ATM—Communication, Navigation, Surveillance/Air Traffic Management
COMSEC—Communications Security
CONOPS—Concept of Operations
CONUS—Continental United States
COR—Contracting Officer Representative
CRG—Contingency Response Group
CRM—Crew Resource Management
CRO—COMSEC Responsible Officer
CRW—Contingency Response Wing
CSD—Class Start Date
CSI—Contingency SERE Indoctrination
CST—Combat SERE Training
CTA—Chemical Threat Area

CUR—Currency
CWD—Chemical Weapons Defense
DMO—Distributed Mission Operations
DNIF—Duties Not Involving Flying
DO—Deputy Commander for Operations
DOC—Designed Operational Capability
DOD—Department of Defense
DRVSM—Domestic Reduces Vertical Separation Minimum
DSN—Defense Switched Network
EAR—Event Accomplishment Report
ECAC—Evasion Conduct After Capture
EGPWS—Enhanced Ground Proximity Warning System
EMCON—Emission Control
EMTF—Expeditionary Mobility Task Force
EOC—End Of Course
EOR—Explosive Ordnance Reconnaissance/Recognition
EP—Fully Certified/Qualified Evaluator Pilot who is performing evaluator duties on the mission
EPA—Evasion Plans Of Action
ESD—Evaluator Standards Document
ETCA—Education and Training Course Announcements
ETP—Equal Time Point
FAA—Federal Aviation Administration
FAAAC—Federal Aviation Administration Advisory Circular
FAIP—First Assignment Instructor Pilot
FB—Basic Qualified Boom Operator
FBP—Flight Engineer Basic Prequalification
FE—Flight Engineer
FEB—Flight Evaluation Board
FEF—Flight Evaluation Folder
FEO—Flight Equipment Officer
FF—Basic Qualified Flight Engineer
FIQ—Flight Engineer Initial Qualification

FIR—Flight Information Region

FLIP—Flight Information Publications

FMS—Flight Management System

FMS—Foreign Military Sales

FOD—Foreign Object Damage

FP—Qualified Pilot

FPC—Qualified Mission Ready Pilot

FPK—Qualified Non-Mission Ready Pilot

FPL—Flight Qualified Non-Mission Ready Pilot (ACIQ/PRQ/PCO graduate in local MR training, or FTL E pilots)

FPN—Flight Qualified Non-Mission Ready Pilot (ACIQ/PRQ/PCO students prior to evaluation, PIQ Graduate in local MR training, or SOC graduate)

FPQ—Flight Qualified Mission Ready MPD Pilot

FS—Flight Surgeon

FTC—Faculty Training Course

FTD—Flight Training Device

FTL—Flying Training Level

FTU—Formal Training Unit

GPS—Global Positioning System

GST—Ground System Training

GT—Ground Training

GTIMS—Graduate Training Integration Management System

HARM—Host Aviation Resource Management

HARMS—Host Aviation Resource Management System

HF—High Frequency

HQ—HAVE QUICK

HRI—High Risk of Isolation

HVAA—High Value Airborne Asset

IA—Information Assurance

IAC—Instructor Aircraft Commander Course

IAP—Instrument Approach Procedure

IAW—In Accordance With

ICAO—International Civil Aviation Organization

IFE—In-Flight Emergency

IFF/SIF—Identification, Friend or Foe, Selected Identification Features

ILS—Instrument Landing System

IMC—Instrument Meteorological Conditions

IP—Fully Certified/Qualified Instructor Pilot who is performing instruction on the mission

IPD—International Program Directives

IQT—Initial Qualification Training

IRC—Instrument Refresher Course

ISD—Instructional Systems Development

ISOPREP—Isolated Personnel Report

ITO—Individual Tryout

ITS—Individual Training Summary

JP—Joint Publication

LAAR—Low Altitude Air Refueling

LCL—Local

LOAC—Law Of Armed Conflict

M—Monthly

MAF—Mobility Air Force

MAJCOM—Major Command

MAR—Mission Accomplishment Report

MCT—Mission Certification Training

MDS—Mission-Design-Series (i.e. KC-10A)

MEP—Mission Essential Personnel

MIF—Mission Index Flying

MISREP—Mission Reports

MOB—Main Operating Base

MOST—Mission-Oriented Simulator Training

MP—Mission Pilot

MPD—Mobility Pilot Development

MPN—Aircraft Commander (Non-Mission Ready)

MPS—Military Personnel Section

MQF—Master Question File

MR—Mission Ready

MSN—Mission

MTL—Master Task Listing

MWS—Major Weapon System

MX—Maintenance

N/A—Not Applicable

NAF—Numbered Air Force

NCO—Non-Commissioned Officer

NLT—Not Later Than

NMR—Non-Mission Ready

NOTAM—Notice To Airmen

N/R—Not Required

OCONUS—Outside the Continental United States

OG—Operations Group

OG/CC—Operations Group Commander

OGV—Operations Group Standardization and Evaluation

ONP—Over-Water Navigation Procedures

OPLAN—Operations Plan

OPORD—Operations Order

OPR—Office Of Primary Responsibility

OSA—Operational Support Airlift

OSS—Operations Support Squadron

P—Proficient

PA—Privacy Act

PAA—Primary Aircraft Authorization

PAI—Primary Aircraft Inventory

PAMS—Pilot Absorption Management System

PCMCIA—Personal Computer Memory Card Interface Association

PCO—Pilot Check Out

PCS—Permanent Change of Station

PF—Pilot Flying

PFT—Programmed Flying Training

PIC—Pilot In Command

PIQ—Pilot Initial Qualification

PL—Public Law

PM—Pilot Monitoring (previously Pilot Not Flying)

PO—Project Officer

POC—Point Of Contact

PPAS—Pilots Performance Advisory System

PR—Progress Review

PRD—Program Requirements Document

PRM—Precision Runway Monitoring

PTT—Part Task Trainer

PTX-1—Pilot Transition Course, unqualified in MDS over 8 years, IAW AFI11-202, Volume 1 (KC-10 equivalent course is ACIQ)

PTX-2—Pilot Transition Course, unqualified 39 or 51 months up to 8 years, IAW AFI11-202, Volume 1 (KC-10 equivalent course is PRQ)

PTX-3—Pilot Transition Course unqualified less than 39 or 51 months, IAW AFI11-202, Volume 1 (Sq/CC directed requalification course in-unit or PRQ)

QA—Quality Assurance

QAI—Quality Assurance Issue

QTG—Qualification Test Guide

RCR—Runway Condition Reading

RDS—Records Disposition Schedule

RegAF—Regular Air Force

RNAV—Area Navigation

RNP—Required Navigation Performance

RQT—Requalification Training

RSC—Runway Surface Condition

RTRB—Realistic Training Review Board

RVSM—Reduce Vertical Separation Minimum

SA/AM—Special Assignment Airlift Mission

SABC—Self Aid Buddy Care

SARMS—Squadron Aviation Resource Management System

SAT—Small Arms Training

SELCAL—Selective Calling System
SERE—Survival, Evasion, Resistance, And Escape
SG—Surgeon General
SIM—Simulator
SIMCERT—Simulator Certification
SIPRNET—Secret Internet Protocol Router Network
SME—Subject Matter Expert
SOAR—Special Operations Air Refueling
SOC—Senior Officer Course
SOE—Sequence of Events
SORTS—Status of Resources and Training System
SOW—Statement of Work
SPINS—Special Instructions
Sq/CC—Squadron Commander
Sq/DO—Squadron Director of Operations
SRB—System Review Board
SRD—Source Related Documents
SSF—Senior Staff Officer Familiarization Course
SSN—Social Security Number
Stan/Eval—Standardization and Evaluation
SUPT—Specialized Undergraduate Pilot Training
TACAN—Tactical Air Navigation
TACC—Tanker Airlift Control Center
TCAS—Traffic Alert Collision Avoidance System
TDY—Temporary Duty
TERPS—Terminal Instrument Procedures
TFT—Total Flying Time
TG—Training Guide
TI—Theater Indoctrination
TIM—Technical Interchange Meeting
TMO—Tanker Manual Operation
TMS—Training Management System

T.O—Technical Order

TOD—Time Of Day

TOT—Time Over Target

TRP—Training Review Panel

TTF—Tanker Task Force

TTP—Tactics, Techniques, And Procedures

TX—Transition

TX-1—Transition Course, unqualified in MDS over 8 years, IAW AFI11-202, Volume 1

TX-2—Transition Course, unqualified 39 or 51 months up to 8 years, IAW AFI11-202, Volume 1

TX-3—Transition Course, unqualified less than 39 or 51 months, IAW AFI11-202, Volume 1

UB—Unqualified Boom Operator

UE—Unit-Equipped

UHF—Ultra High Frequency

UMD—Unit Manning Document

UP—Unqualified Pilot

USAF—United States Air Force

USAFEC—United States Air Force Expeditionary Center

USAFWS—United States Air Force Weapons School

US—United States

UTA—Unit Training Assembly

VFR—Visual Flight Rules

GRACC—Global Ready Aircraft Commander Course

VHF—Very High Frequency

VMC—Visual Meteorological Conditions

VOR—VHF Omnidirectional Range

VTRAT—Visual Threat Recognition and Avoidance Trainer

VVM—Verbalize, Verify, Monitor

Wg/CC—Wing Commander

WIC—Weapons Instructor Course

WPS—Weapons School

WST—Weapon System Trainer

WX—Weather

Terms

AR Mission—Flight that involves AR procedures as a tanker or receiver aircraft.

Academic Training—A course of instruction including, but not limited to, classroom instruction for aircraft systems and operation, flight characteristics and techniques, performance, normal procedures, abnormal procedures, and emergency procedures. To adequately prepare students, academic courses should be completed prior to simulator or flight training.

Aeromedical Evacuation (AE)—The movement of patients under medical supervision to and between medical treatment facilities by air transportation.

Aircraft Commander (AC)—Pilot who has been certified to perform “pilot-in-command” duties.

Aircrew Training Device (ATD)—Includes Flight Training Device (FTD), Boom Operator Trainer (BOT), Weapons Systems Trainer (WST), FMS trainer, Cargo Loading Trainer (CLT), Aircraft Systems Trainer (AST), and other flight simulators.

Aircrew Training System (ATS)—Integrated qualification, upgrade, and continuation training program for crewmembers. Civilian contractors conduct most academic and ATD training. Air Force conducts all flight training.

Annual—Training required once every calendar year.

Basic Aircraft Qualified (BAQ)—Aircrew member who has successfully completed an in-flight evaluation, but is not mission qualified in his or her assigned aircraft.

Biennial—Training required once every two calendar years.

Boom Operator Trainer (BOT)—Aircrew Training Device (ATD) providing synthetic flight, capable of system and emergency procedures training in which KC-10 Boom Operators learn, develop, improve, and integrate skills associated with the KC-10 boom pod. The KC-10 ATS operates two BOTs, one at Joint Base McGuire-Dix-Lakehurst and one at Travis AFB.

Cargo Load Model (CLM)—A miniature, scaled model representing the cargo portion of the fuselage and various pallet models in which KC-10 Boom Operators learn, develop, and improve understanding of basic cargo loading practices. The KC-10 ATS contractor operates one scaled model CLM at Joint Base McGuire-Dix-Lakehurst and one at Travis AFB.

Cargo Load Trainer (CLT)—A full scaled model representing the cargo portion of the fuselage and various pallet models in which KC-10 Boom Operators learn, develop, and improve understanding of basic cargo loading practices. The one full scaled CLT is located at Travis AFB.

Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM)—The USAF is equipping aircraft to meet a specific Communication, Navigation, or Surveillance mandate to fly in a sovereign nation’s specified airspace. CNS/ATM addresses the three major system categories worldwide (communication, navigation, and surveillance) and includes the intended end state for these changes: the transition from Air Traffic Control (ATC) to Air Traffic Management (ATM). The term further achieves standardization DoD-wide.

Communications Security (COMSEC)—COMSEC material, other than equipment or devices, that assists in securing communications and which is required in the production, operation, or

maintenance of COMSEC systems and their components. Examples are keys, codes, authentication information in physical or electronic form, call signs, frequencies, and supporting documents.

Computer-Based Training (CBT)—Ground training system that uses computer-generated graphics or text in conjunction with interactive programs as the primary medium of instruction.

COMSEC Responsible Officer—Individual appointed by a unit commander to oversee the unit's COMSEC program as outlined in AFI 33-201, Volume 2.

Contingency Response Wing (CRW) and Contingency Response Group (CRG)—Team of qualified Air Force personnel established to control, coordinate, and function as an Air Force tanker and airlift C2 facility at a base where normal AMC C2 facilities are not established or require augmentation.

Continuation Training—Ground and flight training events necessary to maintain mission-ready or basic aircraft qualification status.

Crew Resource Management (CRM) Training—See specifics of CRM in AFI 11-290. CRM is designed to improve aircrew teamwork, dynamics, and effectiveness. CRM training is conducted by the ATS contractor as part of yearly refresher missions. G240 requires prerequisite academics (G230), which is conducted as part of the pre-briefs for the CRM refresher missions. Pilots dual log G240 with G261-G264.

Critical Phases of Flight—Per AFI 11-202, Volume 3, this term includes taxi, takeoff, landing, air refueling, tactical and formation operations (other than cruise), all portions of any test or functional check flight or any aerial demonstration. Refer to [paragraph A3.1.1](#) and course specific syllabi for exceptions regarding FTU training missions.

Currency Event—Flying continuation training events with prescribed maximum interval-between-accomplishment shown in the “CUR” column.

Cycle—17-month cycle based on in-flight evaluation completion according to AFI 11-202 Volume 2, AFI 11-2KC-10, Volume 2, and appropriate MAJCOM supplement.

Difference Qualification Training—Training necessary to qualify an individual in a different tactic or system within the same aircraft or an aircraft that is a different series, other than the one in which currently qualified.

Direct Instructor Supervision—Instructor of like specialty with immediate access to controls (for pilot position, instructor will occupy either seat).

Event—A training requirement or training event described in this AFI. Several events or tasks constitute a training profile.

Familiarization Event—An item completed by demonstration, observation, briefing, or in-seat experience. Proficiency is not required.

Flight Engineer Basic Prequalification (FBP) Track Student—A Basic Flight Engineer graduate and/or student with less than three years fixed-wing flying experience. FBP track students are required to attend the FBP course prior to FIQ.

Flight Engineer Initial Qualification (FIQ) Track Student—A Flight Engineer student that is currently and/or previously qualified in another fixed-wing MDS for three or more years. Based

on their previous experience as Flight Engineer, FIQ track students do not require the FBP course prior to FIQ.

Flight Examiner or Evaluator—A crewmember designated to administer evaluations according to AFI 11-202 Volume 2, and the appropriate MAJCOM supplement.

Flight Surgeon (FS)—Medical doctor qualified to perform flight surgeon duties and has current aeronautical orders in that AFSC.

Flight Training Device (FTD)—Duplicate of WST without motion or visual system that provides enhanced systems training environment in which aircrews learn, develop, improve, and integrate skills associated with their crew position. Crewmembers may operate individually or as a team.

Flying Training Level (FTL)—A standard assigned to crewmembers, by the squadron commander, directing flying continuation training requirements.

Formal School Courseware—Training syllabi and all other materials used to conduct formal school courses.

Global Ready Aircraft Commander Course (GRACC)—A multi-step process designed to familiarize the new aircraft commander or aircraft commander candidate with the finer points of operating in the AMC en route system.

Graduate Training Integration Management System (GTIMS)—Comprehensive training management system that provides the method of maintaining information required on aircrew training.

Instructor Supervision—A qualified instructor of like specialty supervising a maneuver or event.

Instructor-Candidate—A crewmember undergoing upgrade training to instructor.

Instructor—Crewmember trained, qualified, and certified by the Sq/CC as an instructor.

Instrument Simulator Sortie—Simulator training focusing primarily on instrument procedures.

Main Operating Base—An RegAF or AFRC/ANG training location.

Mission Certification Training (MCT)—Formerly referenced as Phase II training.

Mission Review Panel (MRP)—Unit level staff, reviews previous day's flight and ground training.

Mission-Oriented Simulator Training (MOST)—Part of the aircrew CRM training program; includes a practical application, a full-mission scenario in ATD.

Mission-Ready (MR)—Crewmember who is current, qualified, and certified in the unit's missions.

Mobility Pilot Development (MPD)—The process by which a MPD pilot transitions from a new dual-seat qualified pilot in the MDS to a fully qualified and certified aircraft commander.

Monthly—Training required once every calendar month. Crewmembers are “non-current” the day after event currency expires (i.e. a crewmember, who accomplished a *monthly* currency event on 5 September, becomes non-current on 1 November).

Night—IAW AFI 11-202 Volume 3, *General Flight Rules*, and AFI 11-401, night is the time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac.

Non-Mission Ready (NMR)—A crewmember that is unqualified, non-current or incomplete in required continuation training, or not certified to perform the unit mission.

Oceanic Sortie (OCONUS sortie)—Sortie includes primary aircrew logging primary, secondary, instructor, or evaluator time outside the 48 contiguous states of the CONUS associated with a procedural oceanic crossing as well as a review of oceanic procedures and overseas (non-FAA) airspace regulations.; see M030 definition in Chapter 7 for approved substitution(s).

Part Task Trainer (PTT)—A physical training device to practice a specific task (e.g., CLT).

Pilot Initial Qualification (PIQ)—Term used to describe the FTU course for initial qualification of a SUPT student into a MAF KC-10 pilot.

Pipeline—An initial qualification trainee directed for training by the AF Personnel Center process.

Primary Method—Training conducted normally at a location designated to train a course using MAJCOM-approved syllabi.

Quarterly—3-month periods defined as 1 October to 31 December (first quarter of the fiscal year), 1 January to 31 March, 1 April to 30 June, and 1 July to 30 September.

Refresher Simulator—Simulator training emphasizing aircraft systems, normal and emergency procedures, and mission-specific training requirements.

Requalification Training—Training to requalify a crewmembers in an aircraft in which they have been previously qualified. See [Chapter 2](#) for requalification training requirements.

Secondary Method—Training conducted at a location not normally designated to train specific MAJCOM approved syllabi, e.g., airdrop qualification course conducted at a line unit.

Semiannual—6-month training periods from 1 January to 30 June and 1 July to 31 December.

Significant Training Event—A training event directly contributing to qualification and upgrade, e.g., computer based training CBT lesson, weapon system trainer (WST), ground training, flight, etc.

Simulated Engine Failure Take-off Continued (EFTOC)—Practice procedure simulating engine failure after a take-off or touch and go.

Simulator—A fixed-based Aircrew Training Device (ATD) providing synthetic flight including: WST and BOT

Special Mission—Any mission requiring special qualification (PNAF, low-level AR, etc.).

Supervised Training Status—Crewmember will fly under instructor supervision as designated by the Sq/CC or evaluator. Use a result of loss of currency or due to less-than-qualified evaluation.

Training Devices—All training devices, computer assisted instruction, sound-on-slide programs, videos, and mockups designed to prepare students for flight training or augment prescribed continuation training.

Training Level—A standard assigned to crewmembers, by the squadron commander, directing continuation training requirements.

Triennial—Training required once every three calendar years.

Unit overprint—An overprint of a form may be words printed over an original AF Form or a newly created form which has, at a minimum, the same information required on the original AF Form. The intent of these training forms is to have proper documentation during the training process. All locally developed forms/overprints should be approved through the appropriate Wing OST office.

Unit—Unless otherwise specified in this volume, “unit” refers to squadron-level activity.

Upgrade Training—Training to qualify a crewmember in a higher crew position.

Weapon System Trainer (WST)—Device with 6 degrees of motion and a visual system that provides synthetic flight and tactics environment in which aircrews learn, develop, improve, and integrate skills associated with their crew position. Crewmembers may operate individually or as a team.

Attachment 2

AIRCREW TRAINING DOCUMENTATION

A2.1. General Information. This attachment provides standardized guidelines on proper training documentation. Instructions are provided for AF Form 4022, *Aircrew Training Folder*, AF Form 4023, *Aircrew Training Progress Report*, AF Form 4024, *Aircrew Training Accomplishment Report*, AF Form 4025, *Aircrew Summary/Close-Out Report*, and aircrew training guides. These forms are prescribed in AFI 11-2KC-10 Volume 1, *Aircrew Training*. Units may use the Graduate Training Integration Management System (GTIMS) or other AMC/A3T approved electronic gradebook in lieu of the hard-copy requirements described in this regulation. Units must maintain all referenced documentation (training, reviews, waivers, etc.) within the database when an electronic option is used.

A2.1.1. Initiate a training folder (AF Form 4022) for [Table 6.2](#) formal training (either at formal school or in-unit), mission qualification/certification, special qualification or certification training, in-unit upgrade program to the next higher crew qualification, requalification training (either at formal school or in-unit), or for any corrective action or additional training.

A2.1.1.1. The unit operations officer may waive the training folder requirement if corrective action or additional training is limited. If initiated, the instructor or flight examiner who evaluated the aircrew member's performance will enter comments pertinent to the training deficiency on AF Form 4023 or the training guide. Use the existing training folder for end-of-course evaluations that result in additional training.

A2.1.1.2. At the unit's discretion, training folders for an individual undergoing more than one training program in a short period of time may combine all training into one AF Form 4022 or electronic folders; e.g., a tanker pilot upgrading to AC may have his or her upgrade, mission qualification/certification, and formation lead training combined in one folder.

A2.1.1.3. Electronic Training Folders and forms are authorized. AMC directs the use of the electronic training folder program (GTIMS) for all RegAF units. All requirements associated with **Attachment 2** (i.e., reviews, ground training requirements, flight training time, etc.) will be documented within GTIMS. GTIMS is a suitable substitute for AF Forms 4022, 4023, 4024 and 4025. Units cannot alter the original forms without AMC/A3TK approval. Electronic Training Folders (other than GTIMS) and reports not reproduced on paper for inclusion in the AF Form 4022 must be stored in 2 places (a primary and a backup) for at least one year.

A2.1.2. Formal schools will send AF Form 4022 with all training records to the trainee's gaining unit. Squadron commanders will review formal school training records and enter appropriate comments on the training guide progress record or AF Form 4023.

A2.1.3. Squadrons will maintain training folders for their personnel in a location readily accessible to instructors and supervisory personnel. The trainee may review his or her folder at any time. Electronic versions must be password protected to ensure data integrity. GTIMS CAC login suffices for this protection.

A2.1.4. The instructor or trainer will review the training folder prior to all training periods. Those areas not previously accomplished or those, in which crew members require additional training, will be noted for possible inclusion during the current training period.

A2.1.5. Upon completion of training, complete and place an AF Form 4025 in the individual's training folder, or accomplish a sufficient write-up in the student's training jacket in GTIMS. Ensure appropriate description of events accomplished and note any strengths and weaknesses. Place a copy of the AF Form 4025 in the individual's FEF only if directed by the guidance implementing the associated training. Squadrons will retain all AF Forms 4022 for 1 year then return them to the crew member. (N/A for GTIMS) Do not insert AF Forms 4022, AF Forms 4023, AF Forms 4024, or training guide into FEFs. Document in ARMS per applicable event and **paragraph 1.8**.

A2.1.6. Training Guides, AF Forms (4023, 4024, 4025), GTIMS equivalent products, and/or unit overprints may be used for all KC-10 continuation and formal training. The current AMC/A3TK approved formal school training guides are available through a link on the A3TK SharePoint web page: <https://eim.amc.af.mil/org/A3T/A3TK/default.aspx> or the KC-10 ATS Website: <https://www.kc10ats.com/index.aspx>.

A2.1.7. For purposes of training documentation, classroom only training conducted at the unit will be identified as Academic Training (AT). Ground Training (GT) will be considered all training conducted outside the classroom not associated with a flight or aircrew training device (Exception: WST/BOT G events). All G series ground training referenced in this AFI will be referenced as (GT).

A2.1.8. Units will use the AF Form 4324, Aircraft Assignment/Aircrew Qualification Worksheet, to update aircrew certifications in ARMS. Blocks 5 – 6 will be used to document initial, upgrade, or downgrade, of aircrew qualification. Block 22 will be used to document award of specific ARMS "Q" code identifiers containing the following minimum information: "Q" code (i.e., QXXX), Certification Name (i.e., Phoenix Banner), and date of certification. AF Forms 1522s may be used in lieu of AF Forms 4324 to document new aircrew certifications that require award of specific ARMS "Q" code identifiers that do not require assignment of associated training profiles. Forward completed form to the unit SARMS section for processing. Once updated and signed, the letter of X's becomes the source document for certifications.

A2.2. Instructions for AF Form 4022. This form is a folder constructed of hard stock paper. The inside covers have tables for documenting training. AF Forms 4023, 4024, 4025, and additional information (waivers, memorandums, etc.) will be attached through the centered holes of the folder. Training guides will be placed inside the folder. The form is available through unit publications distribution offices or the AMC Command Publication Distribution Center. Units may organize the 4022 to fit their needs provided all necessary documentation is included in this folder. This includes the use of tabs and/or dividers when multiple certifications or phases of training are included in one training folder (i.e. MPD folder with Phase I, Phase II, various certifications, continuation training, PCO, Aircraft Commander MCT training). Comply with the following when documenting aircrew training on the form. **Note:** Formal school instructors using ATS courseware are not required to complete the following sections of the AF Form 4022: ground training summary, written evaluations, performance evaluation summary, and flying

training summary if this information is tracked by other means and sent to the gaining unit with AF Form 4022.

A2.2.1. Trainee Information (cover): Provides trainee and course information.

A2.2.1.1. Name and grade. Self-explanatory.

A2.2.1.2. Aircrew position. Self-explanatory. For aircrew members in an upgrade program, enter the aircrew position to which they are upgrading.

A2.2.1.3. Unit of assignment. Self-explanatory.

A2.2.1.4. Type of training. Enter formal course title or, for special mission certification, enter type (e.g., Formation lead, etc.). For other types of training, enter a descriptive identifier.

A2.2.1.5. Class number. Enter formal school class number; otherwise, leave blank.

A2.2.1.6. Course number. Enter only the ETCA formal course number (e.g., "KC10P"), otherwise, leave blank.

A2.2.2. Ground Training Summary (inside left). This section provides a chronological record of ground training events. Record non-flying training events. Entries are required for: PTT, WST, FTD, BOT, and GT. Entries are required for in-unit academic instruction conducted according to formal school courseware. Classroom academic training will be identified as AT. Overprints are authorized and, if used, will be placed on the left side of the AF Form 4022.

A2.2.2.1. Date. Self-explanatory.

A2.2.2.2. Training period. Enter sequentially numbered training period designators (e.g., "FTD-1", "WST-2", "GT-3", etc.) or specific course identifier.

A2.2.2.3. Status. Enter incomplete (INC) and the reason (e.g., "INC-MX" (maintenance) or "INC-PRO" (trainee proficiency)) when an additional training period, over those remaining, will be required to accomplish the lost training events originally scheduled for that training period; otherwise, leave blank.

A2.2.2.4. Instructor/trainer (qualification). Enter the name of the instructor or trainer and aircrew qualification (e.g., aircraft commander (AC), instructor pilot (IP), etc.).

A2.2.2.5. Training time. Self-explanatory. Do not include time normally associated with pre-briefing and debriefing.

A2.2.3. Training Period Designators. Codes to describe training periods. Formal training schools may use more descriptive designators if required.

A2.2.4. Written Evaluations. If applicable and desired, record data for the in-flight evaluation required to complete the training program.

A2.2.4.1. Date. Enter the date the written evaluation was satisfactorily completed.

A2.2.4.2. Type. Enter the AFI 11-2KC-10, Volume 2 description or other appropriate identifier.

A2.2.4.3. Grade. Enter according to AFI 11-2KC-10, Volume 2.

A2.2.5. Performance Evaluation Summary. Record data on required evaluations including re-evaluations (if applicable).

A2.2.5.1. Date recommended. Enter the date recommended for a performance evaluation (BOT, WST, or flight).

A2.2.5.2. Type evaluation. Enter AFI 11-2KC-10, Volume 2 evaluation description or other appropriate identifier.

A2.2.5.3. Instructor (qualification). Enter the name and aircrew qualification of the instructor recommending the student for an evaluation.

A2.2.5.4. Operations review. With the initials of the reviewer, indicate a records review has been accomplished following recommendation for an evaluation. **Note:** Flight commanders or supervisors will accomplish reviews during formal training courses. For in-unit training programs leading to an AFI 11-2KC-10, Volume 2 evaluation, squadron commanders or operations officers are required to accomplish reviews prior to flight evaluations.

A2.2.5.5. Date evaluated. Enter the date the evaluation was completed.

A2.2.5.6. Evaluator. Self-explanatory.

A2.2.5.7. Grade. Enter according to AFI 11-202, Volume 2.

A2.2.6. Flying Training Summary (inside right). This section provides a chronological record of flying training sorties. Log all sorties scheduled even if canceled by external factors such as weather (WX) or maintenance (MX). Overprints are authorized and, if used, will be placed on the right side of the AF Form 4022.

A2.2.6.1. Date. Self-explanatory. On operational missions, enter inclusive dates (e.g., 28 Jul - 7 Aug 13).

A2.2.6.2. Training period. Enter sequentially numbered training period designators (e.g., "S-1," "AD-1," "O-2," etc.).

A2.2.6.3. Status. Enter "INC" and reasons, "WX," "MX," or "PRO" when an additional training flight, over those remaining, will be required to accomplish lost training events originally scheduled for that period (INC-WX); otherwise, leave blank.

A2.2.6.4. Instructor (qualification). Enter the name and aircrew qualification of the instructor.

A2.2.6.5. Mission time. Enter the total flight time of the training or operational mission in the top half of the block. Enter the flight time the trainee was actually in the seat in the lower half of the block.

A2.2.6.6. Cumulative time. Use this block to enter the individual's total cumulative flight time in the specific training course. Enter total cumulative flight time in the top half of the block and the total cumulative seat time in the lower half of the block.

A2.2.7. Performance and Knowledge Standards. Use with AF Form 4024, see **paragraph A2.4.11**.

A2.2.8. Grading Codes. Use with AF Form 4024, see **paragraph A2.4.8**.

A2.2.9. AF Form 4022 Aircrew Training Folder Closure. The Training Folder is considered closed upon successful completion of the final event required by the training program. Final training events include flight evaluation; instructor validation of training (i.e. "sign-off" flight); and/or Squadron Commander Certification.

A2.3. Instructions for the AF Form 4023. This form provides a narrative description of training missions and is also used for documenting operations review of training progress. File AF Forms 4023s in order with the most recent activity on top. Complete this form or a unit developed overprint anytime formal training requirements are completed or anytime the aircraft commander or instructor considers that a write-up is warranted. For multiple-leg missions or deployments, one write-up may be made covering the entire mission if desired. **Note:** Training guides may be used to document training instead of the AF Form 4023. This form may be used for ATS and formal school courses.

A2.3.1. Training Period and Date (block 1). Training period is ground, simulator, or flight (i.e. AT-1, GT-1, SIM-3, S-4, etc.). Annotate the date the training occurred.

A2.3.2. AT, GT, FLY, and ATD (blocks 2, 4, and 6). Annotate time allocated for training and keep a running total (blocks 3, 5, and 7) by adding previous totals to current training period time. Classroom academic training periods will be annotated as AT and tabulated under the ground training block.

A2.3.3. Total Training Time (block 8). Keep a running total of all training time (add blocks 3, 5, and 7).

A2.3.4. Remarks and Recommendations (block 9). Describe the mission scenario. Local overprints are authorized. Comments will elaborate on trainee strengths and weaknesses, identify problem areas, record unusual circumstances, and indicate student progress. Recommendations will be specific and include tasks requiring further training and the type of training required. Include training completed and any other performance based information. If more space is required for annotating remarks, draw vertical arrows through sortie information heading section (blocks 1 through 8) of following block or form and continue remarks.

A2.3.4.1. Operations Review. In addition to reviewing all AF Form 4023 entries, the flight commander or squadron training representative will conduct a monthly review of active status AF Forms 4022. The squadron commander or operations officer will review active status AF Forms 4022 at least once each quarter (N/A formal schoolhouse). The Squadron commander or operations officer quarterly review may count towards the monthly squadron training review. Document reviews on an AF Form 4023. The reviewer will annotate "monthly review" or "quarterly review," as applicable, in the training period block. Write comments concerning the trainee's progress, status, or recommendations in the mission profile, comments, and recommendations block. Initial reviews by Sq/CC's fulfill the requirement for the monthly and quarterly review for the month and quarter the review was completed.

A2.3.4.2. Monthly reviews are not required for formal school courses except in documented cases of unsatisfactory progress. ATS personnel will review the student's records and ensure all required training is completed prior to entering flight training. If

problems are encountered during the flying phase, the squadron will conduct reviews necessary to document unsatisfactory progress.

A2.3.4.3. When the trainee attains sufficient knowledge, experience, and prerequisites for upgrade, the instructor will recommend an evaluation and state: "Recommend evaluation for (crew position)" on the training progress report.

A2.3.5. Instructor (block 10). Instructors will print and sign their name and annotate their rank and crew qualification.

A2.3.6. Students (block 11). Students will print and sign their name.

A2.3.7. Reviewer (block 12). For monthly and quarterly reviews, squadron commanders, operations officers, or flight commanders will print and sign their name and indicate their position. Flight commanders may use their initials in the review block after reviewing individual AF Form 4023 entries.

A2.3.8. AF Form 4023 will be completed and reviewed by the student prior to his or her next training period.

A2.4. Instructions for the AF Form 4024. This form tracks, for each sortie, individual event and task accomplishment, and grades. Units will overprint event and task listings, total number of repetitions required, and the required proficiency level (RPL) for each event and task. Maintain AF Forms 4024 on the right side of AF Form 4022. **Note:** Training guides may be used to document training instead of the AF Form 4024. The AF Form 4024 may be used for ATS and formal school courses.

A2.4.1. Name. Self-explanatory.

A2.4.2. Crew Position. Self-explanatory. For aircrew members in an upgrade program, enter the aircrew position to which they are upgrading.

A2.4.3. Course or Phase of Training. Enter the AFCAT 36-2223 formal course identifier (e.g., KC10P). For special mission certification, enter the type and identify the method of training (e.g., WST training, flying training, etc.).

A2.4.4. Sortie. Enter sortie number (e.g., S-1, S-2, FTD-1, etc.).

A2.4.5. Date.

A2.4.6. Training Event and Task Listing. Reflects the tasks and subtasks in the training program that require specific student performance or knowledge proficiency standards.

A2.4.7. Number Accomplished. Reflects the number of times an event was accomplished on that sortie.

A2.4.8. Grade. Enter a "1," "B," "F," "P," "S," or "U" as appropriate.

A2.4.8.1. "1"—Item must be accomplished once by the crew member, but does not require proficiency.

A2.4.8.2. "B"—Briefing item only.

A2.4.8.3. "F"—Familiarization item; proficiency is not required. The operations group commander or equivalent will determine whether "F" items are completed by briefing, demonstration, observation, or actual accomplishment.

A2.4.8.4. "P"—Proficient; crew member has achieved the required proficiency level.

A2.4.8.5. "S"—Satisfactory; crew member has not achieved the required proficiency level but progress is satisfactory.

A2.4.8.6. "U"—Unsatisfactory; crew member was previously proficient, but has regressed or progress is unsatisfactory.

A2.4.8.7. **Note:** Events preceded by an (*) are trained to proficiency by the contractor in the appropriate ATD during phase 1A; however proficiency in the ATD may in some cases not equate to full aircraft proficiency due to differences in the real-world flight environment. For this reason a student may be graded "S" until full aircraft proficiency is demonstrated in phase 1B for an event graded "*P" in the ATD. An "S" grade denotes satisfactory progression and does not require contractor notification. However, once a crew member has received "P" for an event (in phases 1A, 1B or MCT), the only subsequent grade allowed is either "P" or "U". Likewise, multiple consecutive "S" grades may indicate lack of progression and warrant a "U". Any event graded "U" must have an associated remark on AF Form 4023.

A2.4.9. Total Number Required. Indicates the total repetitions of an event or task required by the course syllabus.

A2.4.10. Total Number Accomplished. Total of the number of repetitions actually accomplished.

A2.4.11. Required Proficiency Level (RPL). RPL for the specific event and task. Each event and task will have a performance standard designated for the required proficiency level the crew member must achieve. In addition, each event and task may have (optional) a knowledge standard designated and used in the same manner as a performance standard. The standards for specific events are either listed in the applicable master task list (MTL) and evaluation standards document (ESD) for each weapon system or identified in this volume. For the KC-10, all events will have an RPL of "3" for performance and "C" for knowledge (if knowledge standards are used in addition to performance standards). KC-10 units may use "P" to signify the RPL has been attained. Performance and knowledge standards follow:

Table A2.1. Event and Task Performance Standard.

Code	Performance is	Definition
1	Extremely Limited	Individual can do most activities only after being told or shown how.
2	Partially Proficient	Individual can do most of the behaviors, but not necessarily to the desired levels of speed, accuracy, and safety.
3	Proficient	Individual can do and show others how to do the behavior in an activity at the minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. For MPD Pilots, proficiency may involve actual airplane control or non-pilot flying duties only. For instructors, proficiency includes the ability to demonstrate, instruct, and supervise ground and flight activity.

4	Highly Proficient	Individual can do behaviors in an activity at the highest level of speed, accuracy and safety.
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Table A2.2. Event and Task Knowledge Standard.

Code	Knowledge of	Definition
A	Fact and Nomenclature	Individual can identify basic facts and terms about the subject and, when used with a performance code, can state nomenclature, simple facts, or procedures involved in an activity.
B	Principles and Procedures	Individual can explain relationship of basic facts and state general principles about the subject and, when used with a performance code, can determine step-by-step procedures for sets of activities.
C	Analysis and Operating Principles	Individual can analyze facts and principles and draw conclusions about the subject and, when used with a performance code, can describe why and when each activity must be done and tell others how to accomplish activities.
D	Evaluation and Complete Theory	Individual can evaluate conditions and create new rules or concepts about the subject and, when used with a performance code, can inspect, weigh, and design solutions related to the theory involved with activities.

A2.4.11.1. Regression. Once a crewmember has received “P” for an event, the only subsequent grade allowed for that event is either “P” or “U”. Regression occurs when an activity is graded “U” after having achieved “P” in the same task. Regression from a “P” to a “U” requires an explanation in the student’s training folder. The overall grade is at the instructor’s discretion. For regression, the student will re-obtain proficiency prior to the end of the block of training in order to be recommended for an evaluation (when applicable) or certification (when applicable).

A2.5. Instructions for the AF Form 4025.

A2.5.1. Units will close out student folders within 5 duty days once training timeline ends IAW [paragraph 1.7.1](#). When a training folder is closed, a single summary/closeout report (Form 4025) will be completed detailing the individual's strengths, weaknesses, overall performance, and other pertinent information.

A2.5.2. Squadron commanders, operations officers and flight commanders will ensure the comments on this form do not reflect personnel opinions or biases. All comments must be supported by information contained in the AF Forms 4023 and 4024 or training guides as applicable. At formal schools, the instructor will accomplish the AF Form 4025 and the squadron commander's signature is optional.

A2.6. Aircrew Training Guides. If available, aircrew training guides (TG) may be used as reference for training programs.

A2.6.1. The ATS contractor will develop TGs. Units may produce TGs when the ATS contractor is unable to provide them. TGs will be developed in accordance with AFI 36-

2201, *Air Force Training Program*. Coordinate TG development through appropriate MAJCOM with an info copy sent to AMC/A3T. (T-2)

A2.6.2. Initiating TGs. Training and resource management personnel in each unit will initiate a TG on crew members prior to their entering any phase of qualification training. Units may elect to use TGs as reference only and utilize AF Form 4023 and subsequently, the AF Form 4024 or GTIMS equivalent to document the completion of each training event.

A2.6.3. Use of TGs. Specific instructions for annotating training are included in each TG.

A2.6.3.1. Active status TGs may be carried by the student during all training and operational missions and made available to the instructor for review and annotation. The student will review and initial the training progress record prior to the next training period.

A2.6.3.2. Complete the training progress record with sufficient detail to specify areas of training accomplished, areas needing improvement, recommended specific study areas for the trainee, and recommended training for the next training period. When the trainee attains sufficient knowledge, experience, and prerequisites for upgrade, the instructor will recommend an evaluation and state: "Recommend evaluation for (crew position)" on the training progress record. Trainees will not be recommended for an evaluation if any required training events are incomplete or requires corrective action.

A2.6.3.3. On missions without an instructor or examiner, the senior qualified counterpart (e.g. AC for pilots, etc.) will accomplish required training for those areas not requiring an instructor. Annotate applicable training information on the training progress record. **A2.6.3.4.** When an initial qualification flight evaluation is not successfully completed and additional training is required, the flight commander will annotate deficient areas on reproduced pages of the appropriate TG and training progress record.

A2.6.3.5. At the conclusion of training, when all requirements of training are met, fill-out an AF Form 4025 in accordance with this volume. Maintain completed training reports and associated AF Form 4025 in a training folder according to **paragraph A2.1.5.**

A2.6.3.6. Do not maintain the TG or training reports in the flight evaluation folder.

A2.6.4. Review Procedures:

A2.6.4.1. Instructors and students will review the TG and/or training reports after each training period. Training accomplished, problem areas, and immediate goals will be discussed. The following are areas that should be covered in the comments' section:

A2.6.4.1.1. Pilots:

A2.6.4.1.1.1. AR missions. Indicate whether the flight was day or night. Also, include whether contact was heavy- or light-weight and the accumulated contact time.

A2.6.4.1.2. Flight Engineers.

A2.6.4.1.2.1. AR missions. Indicate whether contact was heavy- or light-weight.

A2.6.4.1.3. Boom Operators.

A2.6.4.1.3.1. Operational flights or static loads. Enter a general description of

the payload, number of pallets, rolling stock cargo (trucks, engines, tanks, etc.), floor-loaded general cargo, and passengers (e.g., 8 pallets and five passengers).

A2.6.4.1.3.2. AR missions. Indicate whether the flight was day or night. Also, include whether contact was heavy or fighter type aircraft and the accumulated number of contacts.

A2.6.4.2. For in-unit training programs: the flight commander or squadron training representative will conduct a monthly review of TGs. This review will be indicated by entering initials and date in the review block of the TG. In addition, the commander or operations officer will review active TGs at least once each calendar quarter and prior to an evaluation. This review will be a separate entry on the TG and will include comments on weak areas and upgrade potential. Indicate review by signing the instructor trainer block of the training progress record, and enter "quarterly review" in the training period identifier block.

A2.6.4.3. Records of crew members not receiving training, but in an active status, will be reviewed monthly and quarterly as indicated above. If applicable, the statement, "no training accomplished during this period," the reason why, and the projected date when training will resume will be entered on the student's training progress record.

A2.6.5. Disposition of TGs:

A2.6.5.1. If used, place completed TGs in AF Form 4022 and maintain according to **paragraph A2.1.5**.

A2.6.5.2. Formal schools will maintain copies of the aircrew training records on incomplete trainees for six months.

Attachment 3

FORMAL TRAINING UNIT (FTU) GUIDANCE

A3.1. General Requirements. Qualification training for KC-10 crew members consists of Phases IA and IB requirements. Phase IA is administered by the training contractor and Phase IB is administered by US Air Force instructors. Phase IA training is contractor-developed and Air Force-approved. The objective of Phase IA training is to minimize aircraft flying training within simulation and human factor constraints. Phase IB training validates transfer of training from Phase IA; however, Phase IB training is driven primarily by training aircrews to proficiency in receiver AR, formation, various types of approaches, landings, as well as experience in the differences of the real-world flight environment. Phase IB training requirements and events are conducted under AMC/A3 approved syllabi. All Phase IB training for most, if not all, students will be accomplished at the appropriate AMC FTU. Current syllabi can be found at KC10ats.com and the EFB.

A3.1.1. Instructor Requirements. All flight training conducted under this attachment must be supervised by a qualified instructor of like specialty. Crew members undergoing initial qualification training will be under "direct instructor supervision" during critical phases of flight. **Exceptions:** The requirement for "direct instructor supervision" during tanker AR is not required for initial qualification students after demonstrating proficiency in tanker autopilot-off AR (R080) and recommendation for "supervised AR" by an instructor pilot. During initial qualification training, once the student demonstrates the ability to taxi the aircraft safely (no sooner than after sortie 1), they may be certified by their instructor to taxi without direct instructor supervision.

A3.1.1.1. Two KC-10 IAC students or one PCO and one KC-10 IAC student may sit in the seats together for all flight events in which they are current and qualified. All FTU students still require direct instructor supervision for takeoff, landing, tactics, and receiver AR.

A3.1.2. The training and upgrade folder of individuals undergoing training under this attachment must be reviewed by the instructor prior to each mission briefing for each sortie. Areas that were previously identified unsatisfactory or unsafe must be reviewed and corrective measures discussed in detail with the student. In coordination with the FTU chief, the instructor will ensure that the training contractor is apprised of less than satisfactory activity of a student undergoing Phase IB training. If appropriate, additional academic and ATD training may be coordinated and scheduled with the training contractor.

A3.1.3. All pilots will be dual seat qualified. Dual-seat qualified ACs must be capable of accomplishing AC duties from the left seat and pilot duties from the right (i.e. no requirement to be right-seat qualified in receiver AR).

A3.1.4. Prior to commencing Phase IB flight training in the KC-10, each crew member, with the exception of SSF students, will be administered an evaluation (Q005 or Q006 as appropriate) in the applicable ATD. This evaluation will be used to assess the effectiveness of contractor training as well as the capabilities and proficiency of the student.

A3.2. Initial Qualification Training. Conducted at the appropriate contract training facility and Air Force unit. Training is designed to qualify aircrew members in specific crew positions

of the KC-10 aircraft. Initial qualification training requirements are found in the appropriate syllabi. Specific course prerequisite, entry qualifications, and other requirements are listed in **Table 6.1**.

A3.2.1. KC-10 ACIQ – Aircraft Commander Initial Qualification (PTX-1): Qualifies prior MWS, FAIP, and OSA Aircraft Commanders as a KC-10 Aircraft Commander.

A3.2.2. KC-10 PIQ – Pilot Initial Qualification: Qualifies an SUPT graduate to operate the KC-10 from both seats but does not result in an Aircraft Commander certifiable pilot. The pilot will be Aircraft Commander certified in unit or via PCO per **Chapter 5**.

A3.2.3. KC-10 FBP – Flight Engineer Basic Prequalification Course: Provides required training for Senior Airman and above with no prior Flight Engineer experience to successfully complete the KC-10 FIQ follow on course. Requires BFE (Lackland AFB) prerequisite.

A3.2.4. KC-10 FIQ – Flight Engineer Initial Qualification: Qualifies a prior fixed wing performance engineer as a KC-10 Flight Engineer. Experience requirement is at least three years as a performance engineer (fixed wing). Also qualifies KC-10 FBP graduates (see **paragraph A3.2.3**) as KC-10 Flight Engineer.

A3.2.5. KC-10 BBQ – Boom Operator (Basic) Initial Qualification: Qualifies member as KC-10 Boom Operator. Requires BBO (CEA CoE) prerequisite.

A3.2.6. KC-10 SSF – Senior Staff Officer Familiarization Course: The contractor-administered Senior Staff Officer Familiarization Course consists of three days of academic and simulator training followed by one aircraft flight. It is intended for familiarization only and does not lead to qualification in the aircraft. Senior Staff Officers who complete this course cannot log FP time nor be at a set of controls with passengers on the aircraft. Senior staff-level personnel who previously accomplished a formal KC-10 pilot training course that resulted in a Form 8 qualification (i.e., KC-10 SOC, KC-10 PCO, KC-10 IAC, etc.) receive credit for the KC-10 SSF course. Regardless of the venue of KC-10 SSF course credit, KC-10 SSF course credit expires 39 months from the date of the member's last KC-10 aircraft flight.

A3.2.7. KC-10 SOC – Senior Officer Course: The Senior Officer Course consists of pre-course CBTs, 5 days of contractor administered academic and simulator training, and a maximum of four flights with Air Force instructors. This training is the minimum required to attain basic qualification in the aircraft with instructor supervision.

A3.2.7.1. School Quotas for Senior Officer courses are controlled by AMC/A3TF. These courses are scheduled according to need in cooperation with the ATS contractor. Training throughput requirements may affect availability of these courses. Requests for training should be forwarded to AMC/A3TF/K (AFRC users contact AFRC/A3TA). AMC/A3TF will work in conjunction with AMC/A1A and AFRC/A1T to finalize course approvals and schedules. These requests must be submitted a minimum of 45 days prior to requested start date. AMC/A3 will be final authority should a disagreement arise regarding eligibility.

A3.3. Aircraft Commander Upgrade. Individuals may upgrade to aircraft commander via the formal Pilot Check Out (PCO) course or in-unit. The preferred method for aircraft commander upgrade is PCO.

A3.4. Aircrew Instructor Program. Courses are designed to teach selected crew members fundamentals and concepts of instructing.

A3.4.1. Pre-course materials will be provided by the contractor to the unit no later than 35 days prior to course start date. The package will contain a road map of the course, supplemental materials, pre-course reading assignments, and a course workbook. Squadron Training Units will request pre-course materials from the site contractor and ensure successful completion prior to course start date.

A3.4.2. Specific course prerequisites, entry qualifications, and other requirements are listed in **Table 5.3**. All instructor candidates will be trained to a level of proficiency that will ensure their ability to instruct and supervise student activity. Successful completion of ground and flight requirements, including completing an AFI 11-202, Volume 2, as supplemented, evaluation, qualifies the individual to be placed in instructor status.

A3.4.2.1. KC-10 IAC – Instructor Aircraft Commander Course: Qualifies current and qualified KC-10 AC as a KC-10 IP.

A3.4.2.2. KC-10 FIC – Flight Engineer Instructor Course: Qualifies current and qualified KC-10 FE as a KC-10 IF.

A3.4.2.3. KC-10 BIC – Boom Operator instructor Course: Qualifies current and qualified KC-10 MB as a KC-10 IB.

A3.5. Formal Training Unit. The flying phase of training is accomplished at the Formal Training Unit (FTU). Although a considerable amount of time is spent mission planning for sorties, due to the dynamic nature of the tanker mission, instructors are given great flexibility in accomplishing activity during sorties. Therefore the syllabi provide a recommended number of sorties, but training is complete once proficiency is gained in all the required areas.

A3.5.1. In order to ensure continuity of training, limit the number of different flight instructors to a maximum of four for students undergoing qualification, requalification, or upgrade training (not applicable for all AFRC training and RegAF initial cargo qualification). Squadron commanders may waive the four-instructor limit on a case-by-case basis. The flying squadron commander, operations officer, Det 1 AMCAOS personnel, and FTU Chiefs (Pilot, FE, and BO) do not count against the four-instructor rule. A copy of the waiver (including waiver justification) will be filed in the AF Form 4022. Additionally, each student will have one instructor who will monitor the student's progress throughout their training. This primary instructor will be designated, in writing, and will personally ensure the student is proficient in all required areas and is ready for evaluation, if required.

A3.6. Failure to Complete Formal Training. Refer to the appropriate course syllabus for guidance. The formal school will send a recommendation to the individual's unit on whether he or she should complete training in-unit (which requires a waiver), be eliminated, or return to the formal school for training.

A3.6.1. **Phase IA.** An individual may be removed from Phase IA training if identified by the training contractor as incapable of successfully completing a course of instruction. A

joint Air Force and contractor review of the identified student's record will be conducted and a joint recommendation made as to termination or continuation. The training contractor will notify the applicable squadron commander and Det 1 AMCAOS to determine the appropriate course of action.

A3.6.1.1. Det 1 AMCAOS will:

A3.6.1.1.1. Review training records to ensure the training provided was within contract requirements and guidelines.

A3.6.1.1.2. Review required procedures and assist local units in taking appropriate action to ensure that aircrew members who cannot meet training proficiency standards are eliminated from training. See AFI 11-402.

A3.6.1.2. The squadron commander will:

A3.6.1.2.1. Chair Air Force and contractor review of the identified student's record.

A3.6.1.2.2. Request the contractor to provide additional training, if appropriate.

A3.6.1.2.3. If the student is to be eliminated from training, notify AMC/A3TK and AFRC/A3T (AFRC disqualification or suspension from aviation service), via message with information to the appropriate NAF/A3T, if applicable.

A3.6.2. Phases IB. If an individual is unable or unwilling to complete any phase of training, the determination of the appropriate administrative action rests with the squadron commander. (See AFI 11-402 for flight evaluation board or administrative procedures.)

Table A3.1. Initial Qualification Ground Training Requirements (Phase IB).

Code	Ground Training Events	ACIQ	PIQ	FE	BO	Notes
A016	AFRC Associate Program Orientation Indoctrination	1	1	1	1	
A017	Regulation, Directive Knowledge, and Use	P	P	P	P	
A018	AC Responsibilities	1				
	Flight Physical	1	1	1	1	1
	Physiological Training	1	1	1	1	1
G002	Aircraft Marshaling Training and Examination	1	1	1	1	1
G025	Aircraft Field Trip	P	P	P	P	
G080	Communications Procedures	1	1	1	1	3
G130	IRC	P	P			
G190	Aircraft Servicing	F	F	F	F	
G272	Boom Operator Cockpit Orientation				1	1
G231	Initial Crew Resource Management	B	B	B	B	
LL01	Aircrew Flight Equipment Familiarization	1	1	1	1	1

	(AFEF)					
LL03	Emergency Egress Training, Non-Ejection Seat	1	1	1	1	1
LL06	Aircrew Flight Equipment (AFET) Training	1	1	1	1	1
Q001	Open Book Qualification Examination	P	P	P	P	
Q002	Closed Book Qualification Examination	P	P	P	P	
SS01	Local Area Survival Training	1	1	1	1	1,2

NOTES:

1. Required prior to first aircraft flight. Mandatory grounding item; individual will not fly until required training is accomplished. Flight physicals become due 366 days after the previous physical, and expire after the 455th day or as indicated on the AF IMT 1042, whichever occurs first. The required frequency may vary to address waivers and/or individual physical limitations (as determined by the Flight Surgeon), but in no case will exceed 455 days.

2. Required prior to first flight at home station; students attending training at a location other than their permanent assigned base require SS01 prior to first flight at the training location as well.

3. Boom Operators and Flight Engineers may accomplish during MCT if not accomplished in Phase IB.

Table A3.2. Upgrade Ground Training Requirements (Phase IB).

Code	Ground Training Events	AC	IP	IF	IB
A010	Instructor Academic Training		1	1	1
A016	AFRC Associate Program Orientation Indoctrination	1			
A017	Regulation, Directive Knowledge, and Use	P	P	P	P
A018	AC Responsibilities	1			
A044	Instructor Pre-Course Exercise (Workbook)		1	1	1
G025	Aircraft Field Trip		P	P	P
G130	IRC	P	P		
G190	Aircraft Servicing			P	
G231	Initial Crew Resource Management	B			
G232	Instructor/Evaluator CRM		B	B	B
Q001	Open Book Qualification Examination	P	P	P	P
Q002	Closed Book Qualification Examination	P	P	P	P

A3.7. Training Time Limitations. Aircrew members entered in a qualification, requalification, or upgrade training program will be dedicated to that program on a full time basis. **EXCEPTION:** Supervisory personnel may continue their normal duties as time permits. Individuals who enter initial qualification, requalification, or upgrade training at the formal school are subject to the time requirements in **Table A3.3**

A3.7.1. In order to assure training continuity, the student's first Phase IB flight should occur no later than 7 days after completing FTU in-processing to include indoctrination and block training.

A3.7.2. Enter in the Training Review Panel (TRP) the names of all FTU students not initially qualified or MR (qualified) per **Table A3.3** time limits. Reasons for failure to complete training within these limits will be fully explained. For FTU training, no training time extension waivers are required provided this TRP guidance is followed.

A3.7.3. Student training folders will be closed out and transferred to the student's gaining unit within 5 duty days of student's successful flight evaluation.

Table A3.3. Training Time Limitations.

Course	Phase IA & IB (Active)	Phase IA & IB (AFRC)	Notes
KC-10 BBQ	120	180	1
KC-10 FBP	185	180	1,2
KC-10 FIQ	140	180	1
KC-10 PIQ	140	180	1
KC-10 ACIQ	140	180	1
KC-10 BRQ	120	180	1
KC-10 FRQ	90	180	1
KC-10 PRQ	90	180	1
KC-10 BIC	90	180	1
KC-10 FIC	90	180	1
KC-10 IAC	90	180	1
KC-10 PCO	90	180	1
NOTES:			
1. Phase I starts on first day of contractor training.			
2. FBP limits include the FIQ portion of training.			